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A MESOSCALE WINDFIELD ANALYSIS OF THE LOS ANGELES BASIN

Gerald E. Anderson

Center for the Environment and Man,
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by

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ABSTRACT

The rationale, derivation, and use of a mesoscale windfield analysis is presented. In the program reported on herein, the analysis was applied to a specific region - the Los Angeles Basin. This application is in support of a multi-phased effort of modelling ground level and/or three-dimensional air pollution distributions in the region. Los Angeles air pollution modelling efforts supported by the Environmental Protection Agency are using data collected during an experimental program carried out during the fall of 1969. The mesoscale windfield analysis described here was specifically applied to 13 hourly periods from 5:00 am to 5:00 pm on 29 September 1969, and one period at 6:00 am on 30 September 1969.

1. Introduction

A detailed description of an analytical technique for defining two-dimensional (horizontal) wind patterns is presented in Reference 1. A modified version of this analysis is herein presented and applied to a specific site, the Los Angeles Basin.

The basic assumption of the analysis is that in many situations atmospheric boundary layer flows are approximately two-dimensional. The scale of vertical variability is so much smaller than the horizontal scale that the flow may be considered as a horizontal flow perturbed by vertical disturbances.

All two-dimensional flows may be decomposed into uniform flows, source-sink flows, and vortices. That is, every real two-dimensional flow is the superposition of a uniform flow and a distribution of sources, sinks and vortices.

Vorticity can only be introduced into a flow by a transfer-of-energy process, as, for example, by friction. In the atmospheric boundary layer, friction against the ground surface introduces vorticity about horizontal axes, but only vorticity about vertical axes can affect the horizontal wind patterns. Vorticity in the horizontal patterns may be introduced by variations in the surface friction. For example, the wind is turned in toward rough regions. Thus, a "friction island" will be produced by a rough city sitting on a smooth plain. This effect is generally less than the "heat island" effect of the same urban area. The weakness of the friction effect on horizontal wind patterns is fortunate, since it is very difficult to define, measure and/or describe the friction patterns of a large urban-rural complex.

Source-sink effects (divergence-convergence) on horizontal flows often dominate the horizontal wind patterns and at least some of these effects are observable and may be related to measureable characteristics of the atmosphere.

Since the mass of air is conserved in the atmospheric flows under consideration only one mechanism exists for producing divergence (±). Air must move vertically from or to the two-dimensional layer under consideration. Such vertical motions can occur in the near-ground layer because of complex interactions with upper layers, but perhaps the dominant mechanisms are thermal and mechanical interactions with the ground surface itself.

Air flowing across a topographic surface must rise and fall to follow the contours. Since this effect is forced by the surface, it dies out with altitude. Thus, there must be a net rise or fall in the lowest layer at each horizontal location.

Similarly, air heated over a relatively warm surface rises, and it falls over relatively cool areas. The rise and fall depend on the relative surface temperatures. These major mechanisms that produce rising and falling air are determined by surface characteristics, topography and temperature, that may be measured with some precision. The resultant wind patterns may be determined by assuming linear relationships between the divergence and the surface property. The analysis then correlates cause and effect, but falls short of solving the relevant momentum and energy equations that express the full range of interactions. The present analysis is based solely on the mass continuity equation.

The relevant derivations are presented in Reference 1. The results are given in terms of the velocity potential. The velocity itself is the vector gradient of the potential

$$\vec{V} = \nabla\Phi$$

The flow divergence is the Laplacian of the potential

$$\nabla\cdot\vec{V} = \nabla^2\Phi$$

In Reference 2 the potential was presented as being composed of three superposeable components, the mean flow potential, the topographic potential, and the thermal effect potential.

$$\Phi = \Phi_{\text{mean}} + \Phi_{\text{topographic}} + \Phi_{\text{thermal}}$$

In the present analysis, the application to the Los Angeles Basin involved such large perturbations to the mean flow that this linear combination was no longer assumed. The topographic velocity potential is here assumed to depend on the thermal potential patterns.

The divergence due to the thermal effect is found to be proportional to the thermal updraft velocity which, in turn, is assumed proportional to the relative temperature of the ground surface.

$$\nabla^2\Phi_{\text{thermal}} \sim (T - \bar{T})$$

where T is the local temperature
and T is some area mean

The divergence due to the topographic effect is found to be proportional to the topographic slopes and to the wind vector approaching those slopes

$$\nabla^2\Phi_{\text{topographic}} \sim (\nabla\Phi_{\text{mean}} + \nabla\Phi_{\text{thermal}}) \cdot\nabla(\Delta H)$$

where ΔH is height of inversion above the
local topography

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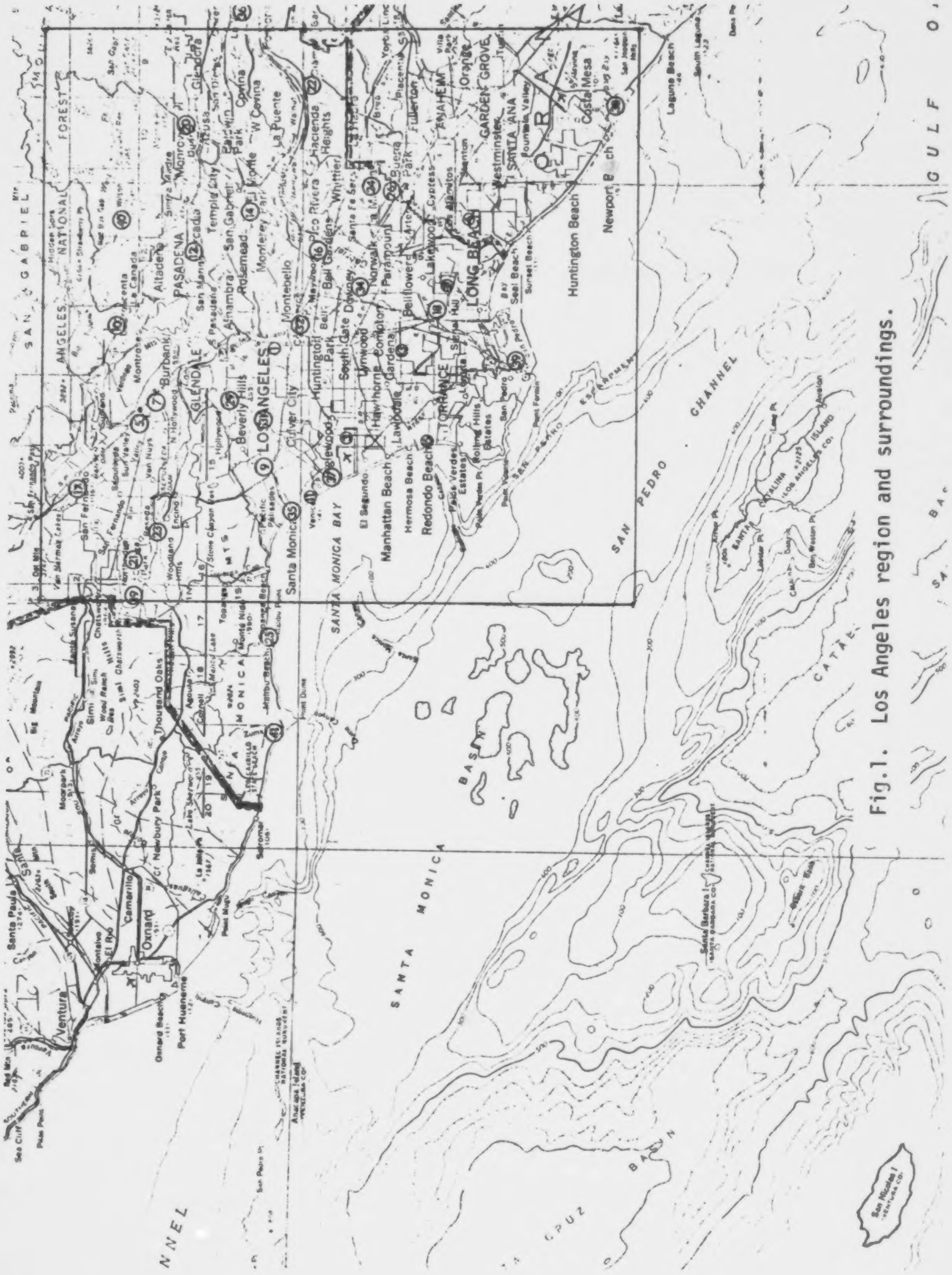

Fig.1. Los Angeles region and surroundings.

The application of these equations to the determination of wind patterns in the Los Angeles area (see Figure 1) is described below. Figure 1 shows the square outline of the region of analysis and the surrounding land and ocean area. San Nicholas Island, a data station for this analysis, is shown in the lower left hand corner of Figure 1.

2. Atmospheric Model

Since the climate of Los Angeles shows considerable stability (i.e., the short-term variability is small) and the chosen experimental day is typical of adverse air pollution conditions, the windfield model presented is most applicable to the meteorological situation of that day and season. However, that situation is of long duration and of significant concern.

Characteristics of the autumn Los Angeles meteorology were inferred from examination of Northern Hemisphere Data Tabulations for several California coastal stations (Point Mugu, Vandenberg, and San Diego) as well as the offshore station on San Nicholas Island. This data was available in CEM's library. In addition, Weather Bureau records for Los Angeles International Airport were obtained from the National Weather Records Center, Asheville, North Carolina.

The meteorological situation modeled on the basis of these records is one of a Pacific High over a cool ocean surface producing a surface-based inversion extending up to about 2000 ft. RAOB's from these stations indicated a persistent inversion with a nearly constant temperature gradient and a nearly constant upper limit near 2000 ft. In this inversion layer, the synoptic scale pressure field is driving a light onshore breeze. Land surface temperatures become cooler than the ocean at night and may become considerably higher than the ocean temperature during the day.

During periods of a relatively hot land surface, a mixing layer based at the ground raises the bottom of the inversion to some altitude above the ground. Sea breezes are concurrently developed. When land surface temperatures fall below ocean temperature, land breezes are developed, but the inversion remains ground-based.

The temporal stability of the upper portion of the inversion layer, combined with a physical concept of thermal mixing over a hot land surface, led to the use of a simple, but not novel, model of the thermal structure. The altitude of and temperature at the top of the basic inversion are taken to be defined by soundings at San Nicholas Island. San Nicholas Island is taken to be representative of the meteorology of the region as it is undisturbed by the topographic and thermal effects of the Los Angeles area. Since the height required is of the order of 2000 ft, it is assumed that the island itself has little thermal effect on the upper portion of the inversion.

It is further assumed that a gentle, synoptic scale breeze is continuously advecting the air mass from the ocean to the land. This advective velocity is also defined by wind profiles reported at San Nicholas. Wind soundings exhibit more variability at all stations than do the temperature soundings. This is true also at San Nicholas. It is particularly true in light wind conditions such as prevailed on 29, 30 September 1969. It is also true that for very light synoptic scale winds, the local flow in the Los Angeles Basin is much more determined by the thermal driving forces. Thus, the determination of the "driving" wind is not as critical for the present cases as it would be for cases with stronger winds. The advected thermal profile is simplified to a constant potential temprerature gradient between sea surface temperature and the temperature at the top of the inversion.

The actual driving wind used in the analysis was a single constant wind of 0.7 mps at 225°. This is a somewhat subjective choice representing an averaging, turning, and reducing (to make appropriate to the mixing zone) of twice daily soundings taken at 500 and 1000 meters.

Over hot land, it is assumed that a mixing layer of constant potential temperature is adjacent to the surface. The layer is assumed to extend to the altitude at which the inversion temperature equals the local surface temperature. The resultant profile is shown in Figure 2.

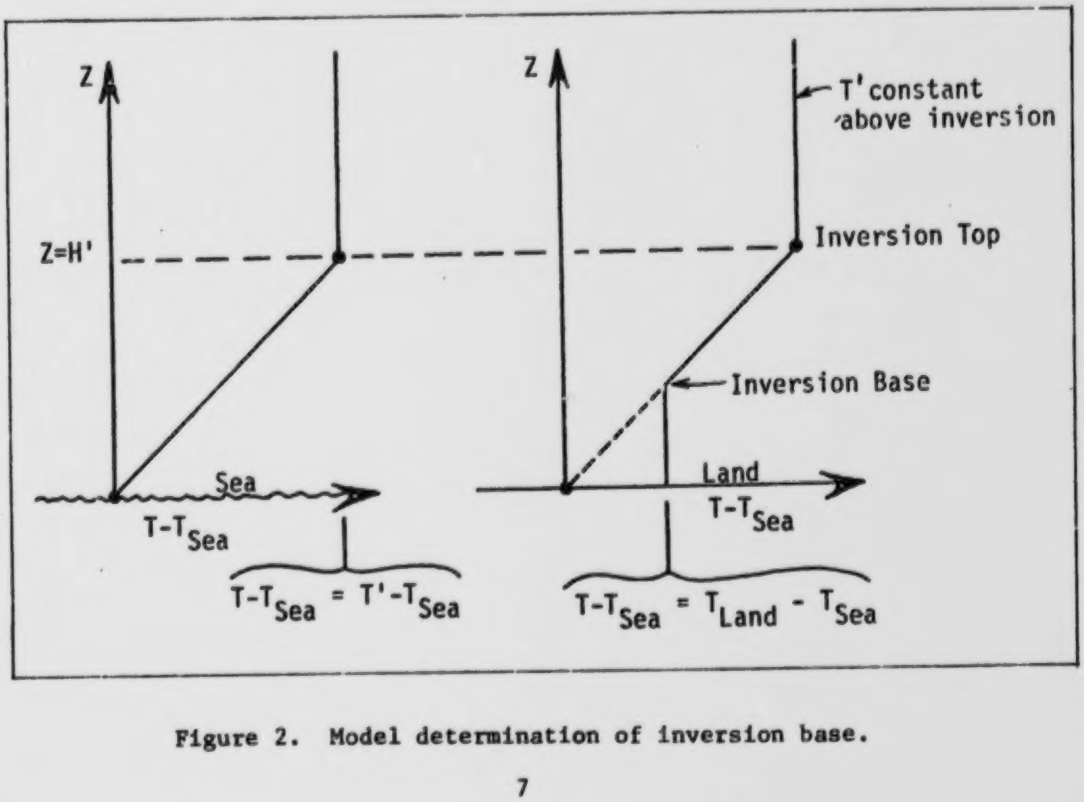

Figure 2. Model determination of inversion base.

Thus, H, the height of the inversion base, is simply

$$H = H' \left[\frac{T(X,Y) - T_{SEA}}{T' - T_{SEA}} \right]$$

Inversion heights from this formula compare favorably with inversion heights identified directly from temperature profiles. Comparisons are shown in Figure 3 where profiles reprinted from Roth (Reference No. 1) are marked with inversion base location determined by the present method along with those presented in Reference No. 1.

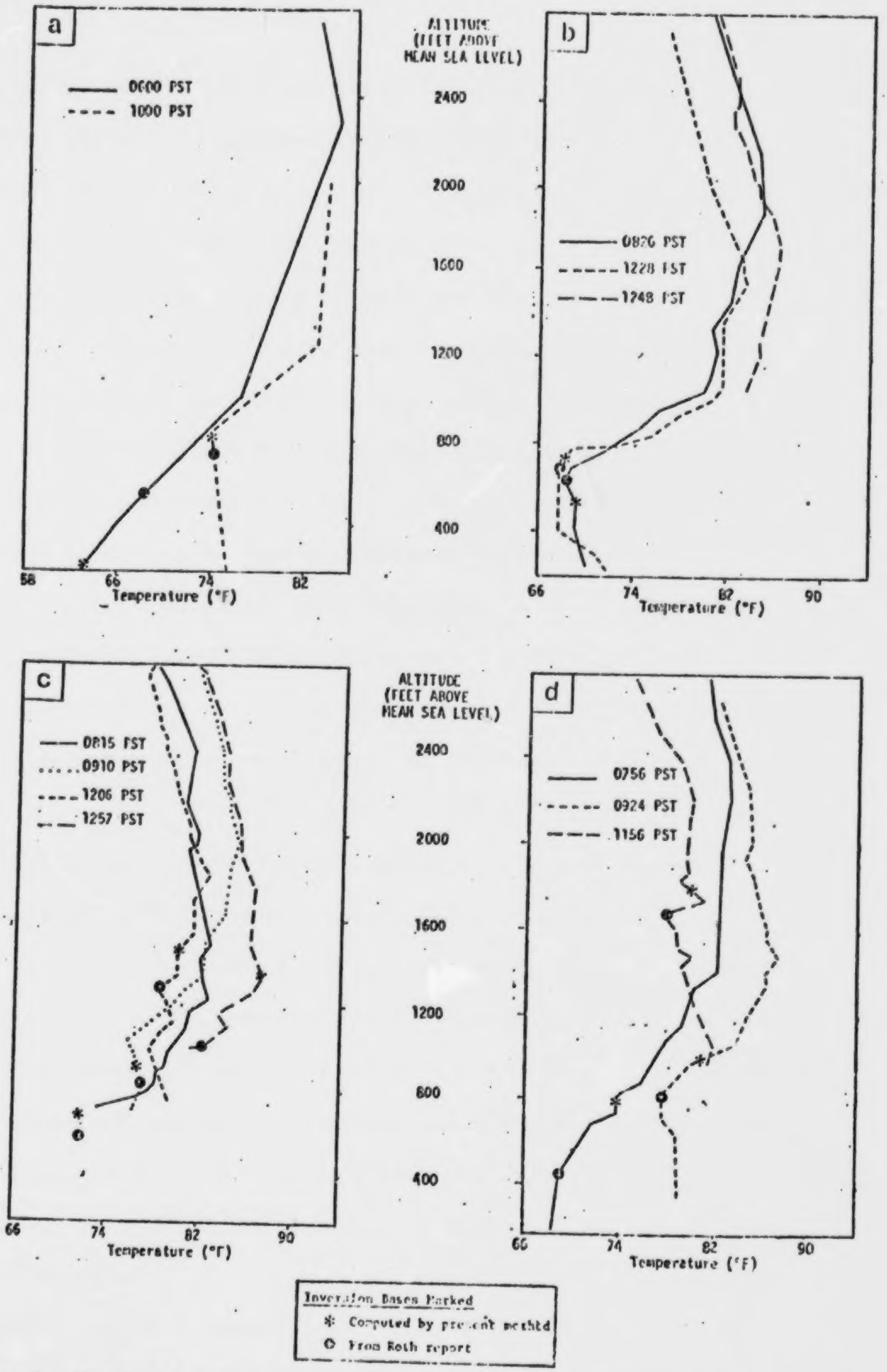

Figure 3. Vertical temperature profiles for 29 September 1969: a) Los Angeles International Airport, b) Hawthorne, c) Commerce, d) El Monte. Reprinted from Roth (Reference 1).

3. Flow Model

Basic modifications to the windfield model described in Appendix A were required to account for the typical presence of a strong inversion which severely inhibits vertical motion and to account for the presence of the very large scale topography present. The formulation of the thermal perturbation to the windfield was actually eased because well distributed surface temperature observations were available.

Equation A(8) of Appendix A is linear and eq. A(5) may be considered linear if the windfield perturbations are small. In the Los Angeles case, windfield variations typically exceed the synoptic scale wind. Thus, no uniform "mean" wind can be reasonably defined for use in the forcing function in eq. A(5). For the model used here, the thermal effect is computed first from the ground surface temperature distribution. The resulting velocity vector field is added to the synoptic scale (uniform on this scale) wind vector. The net windfield is used in the forcing function on the right-hand side of eq. A(5).

The presence of an elevated base of a strong inversion developed by vertical thermal motions has a significant effect on the formulation of the flow model. As discussed in Appendix A, the model basically equates the average over a chosen depth of the horizontal divergence to the difference in vertical velocity over that depth. Since the inversion itself has thermal stability which inhibits vertical motion, its base is assumed to be a surface of zero vertical velocity; that is, mass does not penetrate the inversion base. These assumptions cannot be completely true since the inversion base itself rises and falls in a diurnal cycle. The velocity of the inversion base is, however, generally small compared to the maximum vertical velocity in the layer below the inversion base.

Consistent with the above discussion, it is assumed that the mesoscale thermal circulations are contained within the mixing layer below the inversion base shown in Figure 4. An exception to this concept is assumed when the land is colder than the ocean. In this case, the inversion is ground based, yet down slope thermal drainage is not inhibited. Another exception is that where the computed H is near zero (as over the ocean), a minimum value of H = 200 ft is assumed. This allows flow from the cold regions, and is consistent with empirical estimates of turbulence scales for very stable layers.

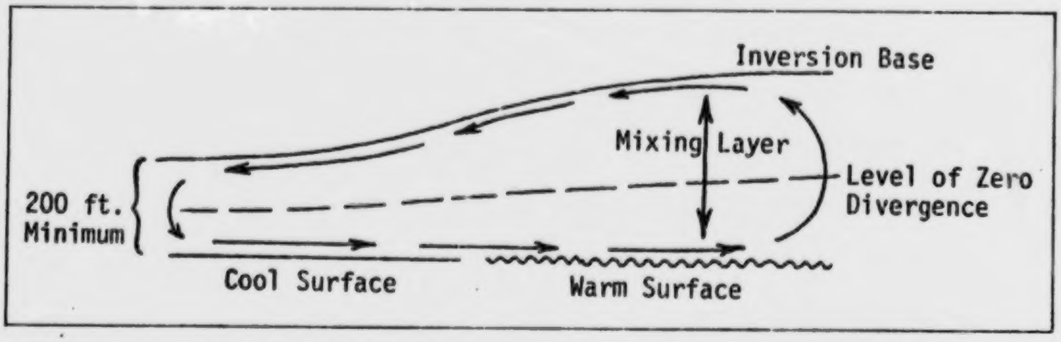

Figure 4. Circulation pattern in vertical slice.

It is recognized that such a pattern will be partially hidden by thermal and shear turbulence found in the mixing layer. The conceptual model shown in the sketch suggests that at about one-half the height of the inversion base, the thermal motion is purely vertical. $H/2$ then, is a convenient upper surface to define as the upper boundary of a near ground flow regime. The space between $H/2$ and the inversion base would then be occupied by a flow moving counter to the near ground flow. With ΔH defined as the inversion altitude minus the local topographic altitude, the model uses $\Delta H/2$ as the layer depth over which the windfield is averaged.

In regions where the topography penetrates the inversion base, the layer thickness goes to zero, thus producing a very large flow perturbation. This represents the turning of the wind as it becomes parallel to the topographic contours because of the extreme thermal stability of the inversion layer. Numerically, however, the accuracy is lost as the singularity of the intersection is approached. The correct analytic condition should be that the component of the wind vector normal to the intersection should be zero; i.e.,

$$\vec{n} \cdot \nabla\Phi = 0 ,$$

where $\vec{n}$ is a unit normal vector and $\nabla\Phi = \vec{V}$.

The algorithm programmed for solution of the Poisson equation, however, only allowed specification of Φ as a boundary value. Therefore, the boundary condition was approximated by specifying large arbitrary values of ∇H (the topographic gradient) at the edges of topographic penetrations of the inversion base. This was done by setting ∇H to a constant large value wherever ∇H was negative (and the land surface temperature exceeded the ocean's). Thus, topographic penetrations became "mesas" with topographic gradients large at the rims, but zero at the interior of these "mesas." Another view is that the vertical resistance of the inversion increases the effective topographic slope (see Figure 5).

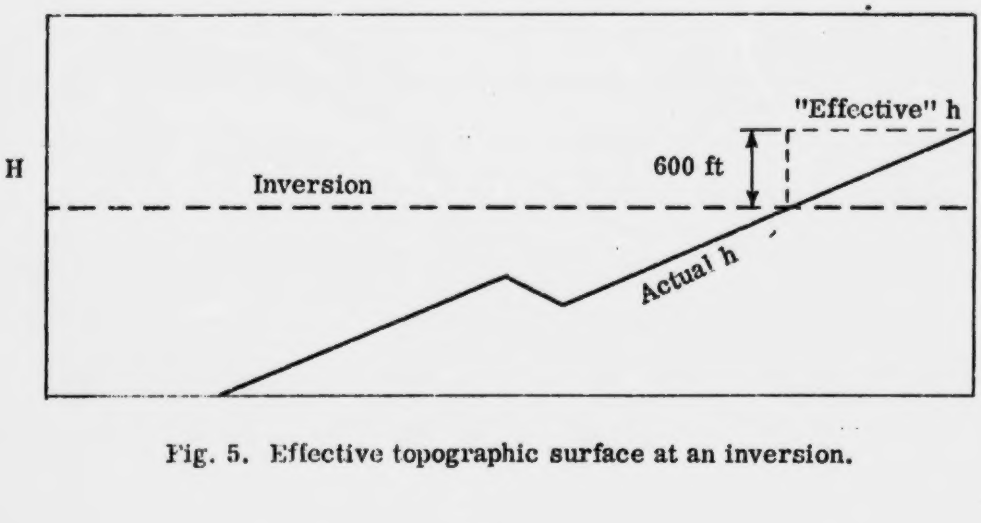

Fig. 5. Effective topographic surface at an inversion.

A separate trial of this scheme was carried out and Figure 6 shows the potential lines corresponding to flow about such topographic islands (the shaded areas). It is seen that the condition of $n \cdot \nabla\phi = 0$ is approximately met at the "shores" of the "islands" (Cliffs of the mesas). The trajectories, which would be lines normal to the potential lines, are thus turned to be tangent to the "shores".

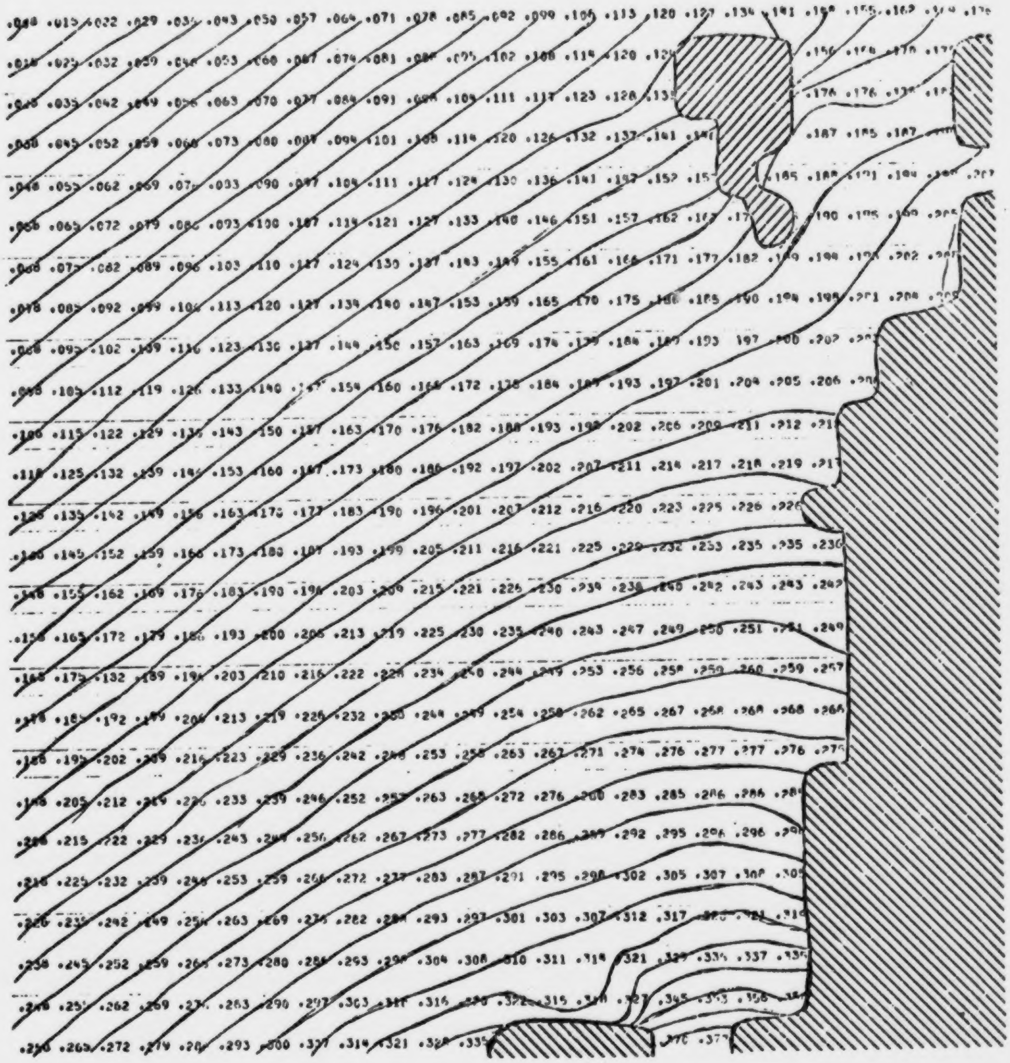

Figure 6. Constant potential lines for flow past mountains.

4. Computations

The program was written in ANAL70, a language available for use on a UNIVAC 1108. The program is printed in Appendix D and the program specifications in Appendix B. Since ANAL70 programs are executed in fixed sequence, flow charting is generally irrelevant and the type of specification used seems most appropriate.

5. Empirical Constants

Although the model does not make use of the full set of relevant dynamic equations, there is little empiricism in the solution of the equations used. The only arbitrary constants defined are:

1) the altitude heating effect. The surface temperature in an otherwise homogeneous thermal region is assumed to lie one-third of the way between the constant temperature value and the constant potential value. This allows computation of an altitude effect on temperature that is reasonable in regions of significant topography far from temperature data stations. The correction is not large, so the accuracy of the one-third estimate is not critical.

2) the minimum ΔH. It is set at 200 ft (as discussed above).

3) the "mesa" walls at topographic penetrations of the inversion. They are assumed to be 600 ft high. Again, the exact value chosen here is not critical.

4) the constant relating the ground temperature and the thermal updraft velocity generated. It is assumed to be

$$\alpha = \frac{w}{T - T_{SEA}} = .001 .$$

This value was chosen as producing the most nearly correct wind speed at the coast for sea breeze occasions, and is most subject to "tuning" adjustments.

6. Data

Ground surface temperatures were taken from data provided by Roth from a 1969 Los Angeles experiment (Reference 1). Specifically, data was used for thirteen (13) hourly periods from 5:00 am to 5:00 pm on 29 September 1969 and for 6:00 am on 30 September 1969. Temperatures were provided for nine (9) stations for most periods, but a few reports were missing in the early morning hours. Missing temperatures were assumed by inferring consistency of patterns with the available data. Gridpoint temperatures were interpolated by the method described in Appendix C.

Topographic height on a 50 × 50 mile grid with two mile grid spacing were taken from Roth (Reference 1). Additional topographic data was obtained from Dr. James Angell of ARL/NOAA. This data was defined on a 1/2 km grid of 116 points (N-S) by 137 points (E-W). An ANAL70 program combined (by interpolation, where necessary) both sets of data on a 49 × 49 (1 mile) grid. Point (1, 1) was located at 118° 37' 13" W, 33° 34' 53" N. The inversion height, surface and inversion top temperatures, and the surface synoptic wind were taken from San Nicholas Island soundings.

7. Results

The model was run for thirteen (13) temperature sets from 5:00 am to 5:00 pm, 29 September 1969, assuming the San Nicholas Island data to be constant for the entire day. One run was made for data from 6:00 am, 30 September 1969.

Computer printouts were obtained for:

- the analyzed temperature field (T),
- the grid point values of the velocity potential (PHI),
- the grid point values of the south wind component (V),
- the grid point values of the west wind component (U).

These printouts are reproduced in Appendix D. Each printout sheet is labeled at the top with the dependent variable name and a power of ten scaling factor. Each label also includes the SETS number (e.g., 5:00 am is labeled SETS = 1). All fields were printed out on a 25 x 25 grid (i.e., every other point of the 49 x 49 grid) although the computations were done on a doubly dense net, as noted above. In the printouts, north (Y) is to the right. Also zeroes are printed on grid points of the PHI, U, and V fields where the topographic surface rose above the local inversion.

In addition, graphic display was generated with an SC4020 film writer. The fourteen (14) SC4020 frames are reproduced in Appendix D. They show wind vectors at the output grid points (i.e., at every other point of the analysis grid). The wind vectors are superimposed on topographic contours, and regions warmer than the ocean that rise above the inversion base are cross-hatched with grid lines. Wind vectors in cross-hatched regions are suppressed. Winds in these regions are not computed by the present model. Indeed, they are not needed since it is assumed that the extreme topographic contours are coincident with wind trajectories in the cross-hatched regions.

The known general features of the Los Angeles winds are reproduced with both land and sea breezes generated at the appropriate times. Inclusion of the 6:00 am 30 September 1969 case was specifically to provide a case for which significant portions of the ground surface were cooler than the ocean. The analysis results in land breezes for this condition. Although the wind speeds for the land breeze case are too low for the vectors to be displayed at many points in Frame 14, the land breeze is displayed in the grid prints of PHI, U, and V. It will be noted in these displays that zeroes appear over much of the ground surface. This indicates that much of the ground surface was warmer than the ocean for even this case. The warm ground region appears as the gridded area in Frame 14.

The land breezes computed for the fourteenth SET are, again, net results. They include a mean driving wind of 0.7 mps from the SW. The land breeze would be stronger in the absence of this synoptic component. Winds this light are extremely difficult to define analytically and observationally, but the use of observation to better define the mixing depth (200 m used here) would increase the confidence in analytical results.

Gridprint output of PHI may be interpreted by noting that flow is from low PHI values to high PHI values. The flow speed is proportional to the differences between PHI values at adjacent grid points. For SETS = 14, the output shows a minimum PHI at (x, y) = (37, 25); [i.e., (19, 13) on the 25 x 25 grid = 37, 25 on the 49 x 49]. The location of a minimum PHI is a center of divergence. Since flow is constrained by the inversion from leaving the valley northward, flow spreads out as a land breeze southward, flowing about both sides of the Palos Verdes elevation. West winds appear near the major area of inversion at both the western and eastern borders of the region. The west wind region at the west edge is much smaller because the synoptic scale wind is blowing counter to the land breeze, whereas in the east it is adding to the divergent flow. West winds at the eastern border may be unrealistic but the analysis cannot make predictions without data, and no data is available on ground temperatures at or beyond the limits of the region.

In the rest of the region the land breeze is seen to be a maximum near the coast and to be stronger and more uniform at sea than inland.

Sharp vertical gradients of the wind often observed in extremely stable slope wind, valley drainage, and land breeze cases also emphasize problems in defining horizontal wind fields for regional pollution analyses. The breeze blowing in the face of a man on the ground may be quite different than that read by the anemometer (at, say, 20 ft) that he is tending and could be in the opposite direction from the breeze which entrains effluent from a nearby chimney stack.

Some boundary effects seem somewhat unrealistic. At the northern edge of the region this is probably because the mountains and the boundary condition prevent flow from crossing much of the north border, but this is also the region of the most complex topography and most commonly lies above the inversion base, so it is difficult to judge the flow features realistically for this region. The closed circulation cell that appears in the San Fernando valley seems superficially like that observed. It is doubtful, however, that the analysis is accurate enough in this region to trust.

The inversion does not rise to allow mixing layer flow into the San Fernando valley until 10:00 am on the 29th (Frame 6). By 11:00 am it has risen more and mixing layer flow is crossing much of the northern ridge bordering the Los Angeles basin. The net flow across the northern border of the analysis region is zero, however, because of boundary conditions applied in the absence of data. It is unclear how realistic the solution is near the borders of unknown temperature and/or flow.

Similarly, flow in the eastern part of the region is strongly influenced by assumed boundary conditions there. If the region to the east of the analysis region is warmer than is assumed, there would be a more westerly component to the wind vectors, and flow out through the eastern border.

Since the cool-land drainage patterns involve extremely thin layers, they would be most sensitive to small-scale topography in the real world and to assumed values of empirical constant in the computer. Thus, solutions for cool-land regions and/or times should be more suspect than hot-land regions and/or times.

A magnetic tape record of the numerical results for these fourteen (14) cases was submitted to EPA to be compared, by their computer, with observational data and with windfields defined by several objective interpolation techniques.

8. Recommendations

Since the guiding of the flow by the largest scale topographic features seems to be such a major feature of the results, it would seem important to use the more correct gradient type boundary condition. This assures that the flow is parallel to the topographic contours. The algorithm for this type of boundary condition has been written, but has not yet been included in the program.

Formulation of the boundary conditions for the thermally driven wind seem unduly arbitrary and seems to lead to unrealistic flow patterns in a limited section along the northern border. This could probably be improved.

Further calibration runs could improve the specification of the constants of the problem.

A small amount of additional programming could produce output with above-inversion windfields in the same display. It might be somewhat misleading, however, since there should be little pollutant transfer at the field intersections. That is, pollutant leaving a zone in which the topographic surface lies above the inversion should override the mixing layer, while pollutant reaching the edge of a ground-level mixing region should be swept into the counter-current flow in the upper half of the mixing layer.

9. References

1 Roth, P. M., S.D. Reynolds, and P.J.W. Roberts, 1971: The treatment of meteorological variables. Appendix C, *Development of a Simulation Model for Estimating Ground Level Concentrations of Photochemical Pollutants*, Report 71-SAI-17, June.

2 Anderson, G. E., 1971: Mesoscale Influences on Wind Fields. *J. Appl. Meteor.*, 10, 377-386.

Appendix A: Mesoscale Influences on Wind Fields*

ABSTRACT

An analysis of mesoscale influences on ground level wind fields indicates that topography and the thermal cells associated with mesoscale ground temperature anomalies (urban heat islands and land-water contrasts) are the major determinors of horizontal trajectory perturbations on scales appropriate for air pollution analyses. Simple analyses based on the divergence equation permit calculations of wind fields for air pollution trajectories that appear much more realistic than conventional objective analysis of surface wind observations. The analysis provides a unique objective procedure for real-time integration of the conservation of pollutant equation or for the development of regional air pollution climatology.

1. Introduction

When atmospheric winds are measured, the resulting reported values are on physical micro- or macroscales that are inappropriate for many theoretical or applied needs. A particular need is for knowledge of mesoscale wind fields to be used in calculations of the dispersion of atmospheric pollutants. In spite of the power of modern computers and programming languages, it is not practical for wind-field analyses to press the analytical state-of-the-art. Thus, in the following work, it is intended that the analysis should provide an accurate, quantitative model of the most significant known effects, should not violate important constraints of neglected effects, and should be simply and economically appropriate for real applications. The analysis presented here was developed in its original form by the author for use in the Connecticut air pollution simulation model (Hilst, 1968). Extensions to thermal perturbations were made for the Center for the Environment and Man (CEM) air pollution model for the Toronto Metropolitan Region.

The difficulties encountered in trying to measure mesoscale wind fields are suggested by Fig. 1. The relevant scales for atmospheric pollution are roughly mapped out as the appropriately grey area in this figure. The heavily outlined scale regimes which are susceptible to direct measurement by wind measuring devices such as anemometers, pibals and tetroons overlap very little of the regime of interest for pollution problems.

Alternative approaches to determining wind fields on the scale of pollution clouds include indirect measurement and the use of theory. Pressure measurements are used to define wind fields on a synoptic scale, but the macroscale "weather" patterns so defined are also seen (Fig. 1) to be of an irrelevant scale. "Thermal" fields are sometimes of appropriate scales, but direct measurements of these fields are not usually available, and the theory of these fields as a function of surface, moisture and radiation conditions is not firm enough to allow us to obtain solutions for all such thermal motion fields. In this paper, the only thermal fields treated are those due to "heat island" and "lake breeze" effects. The long time-scales of these phenomena make them significant thermal influences on pollution wind patterns.

Surface friction elements and their effect on boundary layer flow may be significant, but technical work to date in meteorology has not disclosed suitably simple analyses appropriate to our needs for mesoscale influences usable in the air pollution model. Comparative analysis indicates that the generally greater roughness of the built-up area of a city creates a "friction hump," analogous to a heat island in urban areas, but the magnitude of the friction effect on wind fields is considerably less than the heat island effect on wind fields. In general, it is only the horizontal variation of roughness (e.g., the urban-rural contrast) that affects horizontal wind trajectories. Since roughness cannot be described with precision, inclusion of frictional effects in this analysis does not seem feasible at this time.

One more factor is depicted in Fig. 1--topography. Topographic elements are measurable, their influence on atmospheric flow is subject to objective analysis, and their scales neatly overlap the scales of interest for pollution problems. We may anticipate a correspondence between the scale of the topographic elements and of the atmospheric motions they induce. Therefore, a calculation of low-altitude flow over a given topography should give at least a component of a real wind field that would be relevant to pollution and other mesoscale analyses.

It would seem that thermal, topographic and frictional effects could, to a reasonable approximation at least, be decoupled. In the following analysis, frictional effects are ignored, and thermal and topographical effects are each treated separately. The solutions are added to obtain the net wind-field disturbance. The disturbance field added to the observed or assumed synoptic wind field yields the net calculated wind.

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* Manuscript by G.E. Anderson (CEM), reprinted from *Journal of Applied Meteorology*, Vol. 10, No. 3, June 1971, pp. 377-386.

2. Analysis

a. Topographic wind fields

It was intended to develop a technique for defining mesoscale wind fields that would be feasible and economically practical for use in routine operation of a computerized pollution model. Therefore, it was essential to determine those analytic features of greatest significance. The topographic analysis presented here specifically considers conservation of mass only. Certain aspects of dynamics are used but the momentum equation is not solved. The energetics of the problem are not considered. This approach seems reasonable in light of the remarks of the previous section. If the momentum (friction) and heat exchanges between the atmosphere and the surface are not considered, the impenetrability of the surface is its most significant characteristic. We write, then, the three-dimensional continuity equation for an incompressible atmosphere, assuming a limited vertical motion, so that pressure changes are small:

$$\frac{\partial u}{\partial x}+\frac{\partial v}{\partial y}+\frac{\partial w}{\partial z}=0, \tag{1}$$

where x, y, z are the orthogonal mean wind-oriented coordinates, and u, v, w are the corresponding velocity perturbations.

If we are concerned with the horizontal wind field averaged over the depth of the pollutant cloud, we may write (1) as

$$\int_h^H \nabla\cdot\mathbf{V}dz=-\int_h^H \frac{\partial w}{\partial z}dz, \tag{2}$$

where ∇ is the gradient vector in the horizontal plane, $\mathbf{V}$ the total perturbed velocity in the horizontal plane, h the local altitude of the surface, H the upper bound of the disturbed air, and the overbar indicates an average over z.

Expression (2) may be integrated and the result simplified by noting that

$$\left.\begin{array}{lll}(H-h)\approx H, & \text{if the wind-field disturbance is thick} \\ & \text{compared to topographical variations} \\ w(H) \approx 0, & \text{i.e., the topographic effect is not felt} \\ & \text{above the height } H \\ w(h) \approx \mathbf{U}\cdot\nabla h, & \text{where } \mathbf{U} \text{ is the unperturbed mean} \\ & \text{velocity}\end{array}\right\}. \tag{3}$$

We also define

$\mathbf{V}=\nabla\phi'$, where ϕ' is the potential function of the perturbation. (4)

Then (2) becomes

$$\overline{\nabla^2\phi'}=\frac{1}{H}\mathbf{U}\cdot\nabla h. \tag{5}$$

If, now, velocities are normalized by the mean wind speed U, h is normalized by the layer depth H, and the divergence by its surface value $\nabla^2\phi(h)$, i.e.,

$$\begin{aligned}\nabla\phi &= \bar{V}/U,\\ \mathbf{v} &= \bar{U}/U,\\ h^* &= h/H,\\ \nabla^2\phi^* &= \nabla^2\phi(z)/\nabla^2\phi(h),\end{aligned}$$

we obtain

$$\overline{\nabla^2\phi}=\nabla^2\phi(h)\overline{\nabla^2\phi^*}=\mathbf{v}\cdot\nabla h^*. \tag{6}$$

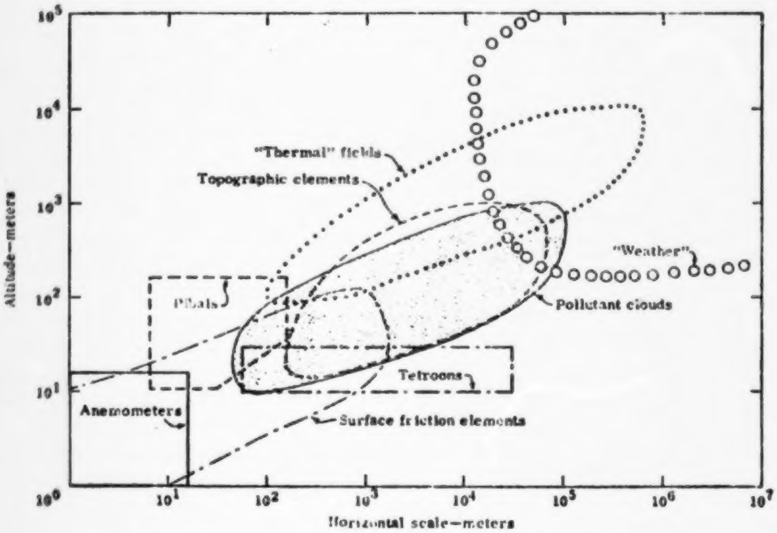

FIG. 1. Scale ranges of significance for atmospheric boundary layer pheromena and measuring devices.

Eq. (6) is an expression for the *mean* disturbance to the wind field over the layer which is disturbed. If we are concerned with tracing the flow of pollutant, we would wish to know the *mass weighted mean* disturbance to the wind field.

Classical hydrodynamic calculations (see Lamb, 1932, and Shapiro, 1953) show that the potential disturbance due to topographic elements is felt with little diminution to heights that are of the order of the dimensions of the elements (i.e., a hill's radius of curvature or the spacing between ridges); thus, the topographic disturbance should be substantially constant over depths of significant pollution.

b. Mean winds

To generalize the calculation, and to avoid the requirement of solving (6) for every mean wind field, the only input wind fields used were a unit west wind ($\nu_x=1$, $\nu_y=0$) and, separately, a unit south wind ($\nu_x=0$, $\nu_y=1$). If the mean wind fields are uniform, Eq. (6) is linear, and perturbation fields can be obtained by scaling and adding the fields due to each of the unit component winds.

In some cases the synoptic-scale patterns may be small enough to warrant the definition of a nonuniform mean wind field. In these cases, it is a simple matter to assign ν_x, ν_y mean wind components to each calculation grid point.

c. Topography

Topographic heights h are required at a suitable array of grid points.

For the Connecticut analysis, a single, low-pass smoothing of the topographic data was used to remove regional-scale topographic "trends." The net topography used in the model, then, is the local grid point height above or below the topographic "trend."

Since Eq. (6) relates the horizontal flow divergence to the topographic gradient, the wind-field solutions using unadjusted topography will include divergence at all scales for which topographic gradients exist. Modeling of the largest scale (i.e., scales comparable to the dimensions of the region) perturbations of the wind may be quite unrealistic. Topographic effects at these scales depend heavily on topography beyond the region's boundaries. Topographic wind-field perturbations on the regional scale are not generally significant for pollution modeling in any case since they would superimpose a weak convergent or divergent wind field over the entire region. This would merely affect the overall space-averaged concentration levels by a very small amount. In Connecticut there is an overall increase of mean height above sea level from south to north. The hills and valleys, then, represent departures from the local mean height.

d. Boundary conditions

To solve (6) the velocity perturbation potential ϕ must be specified on the region's boundary. In the absence of knowledge of the potential outside of the region, the real values of the potential for any given case cannot be known. All solutions were obtained with the arbitrary specification of a zero potential on the boundary. This corresponds to the assumption that the mean, synoptic wind prevails outside of and on the boundary but is perturbed within the region.

e. Thermally driven winds

The mass conservation equation (2) provides a fairly good model of the effect of mesoscale thermal cells on horizontal wind-field patterns. The relevant growth or decay time scales are long with respect to dispersion integration time scales, and the vertical extent of such thermal cells is often large with respect to the pollution layer thickness of interest; thus, the thermal effect is to produce a quasi-steady, quasi-horizontal wind disturbance in the near-ground layer.

The thermal effect is assumed to be independent of the topographic effect—note that Eqs. (6) and (7) are both linear—and thus, the thermal effect is calculated for a flat surface. On a flat surface the vertical velocity at the surface is zero, but surface temperature anomalies produce finite vertical velocities at the upper limit of the polluted layer (Fig. 2). Eq. (2) then reduces to

$$\overline{\nabla^2\phi^*}=-w^*z^*=-w^*, \tag{7}$$

since $z^*=1$ at the top of the layer; w^* is assumed to depend on T_g, the ground temperature (a function of x and y) and $\bar{T}$, the spatial mean value of T_g. Without solving the dynamics of the thermal cell, a large measure of realism may be obtained by simply setting

$$\overline{\nabla^2\phi}=-\frac{w}{H_0}=-\frac{A(T_g-\bar{T})}{H}, \tag{8}$$

where A is a constant of proportionality to be determined from observations.

The scale factor A in (8) represents the sensitivity of the wind field to the temperature potential. It must be evaluated experimentally. Experimental measurements of the Toronto heat island effect reported by Findlay and Hirt (1969) were used to determine A. Gauss' theorem for source-sink fields relates the flux across a closed boundary to the total divergence (source strength) enclosed; thus,

$$\int_P \mathbf{n}\cdot\mathbf{V}dP=\int_R \overline{\nabla\cdot\mathbf{V}}dR, \tag{9}$$

where P is the perimeter, R the area of the region and $\mathbf{n}$ a unit vector normal to the perimeter.

Since (8) relates $\overline{\nabla \cdot V}$ (and, hence, $\overline{\nabla^2 \phi}$) to A and $T_g - \bar{T}$, we have

$$\frac{A}{H} = \int_P \mathbf{n} \cdot \mathbf{V} dP \bigg/ \int_R (T_g - \bar{T}) dR \approx \frac{\hat{V}_n}{(\hat{T}_g - \bar{T})} \left(\frac{P}{R}\right), \qquad (10)$$

where V_n is the outward normal component of wind across the boundary, the caret represents an average over R, or P, and the overbar is an average over some area that is large with respect to R.

Thus, A may be determined from a single determination of the radius of maximum inflow associated with a given temperature field. The case studied by Findlay and Hirt indicated a maximum inflow velocity of 1.7 m sec^{-1} associated with a temperature potential of ~2.5C. With the temperature field characteristics postulated in the next section, these data give a value of $A/H = 0.1$. The precision of this result obviously leaves something to be desired but Findlay and Hirt's comparison with Gold's (1956) theoretical results should be valid for this result also. The result should be more effective than anemometer wind readings to sort out thermal and topographic wind-field modes.

As a minimum, this linear relationship centers updrafts over "hot spots" and makes the intensity of a thermal cell proportional to the energy input. Advection of the thermal patterns has not been accounted for, but could easily be included in multi-layered models.

f. Thermal patterns

When the wind generating routine was developed for the Connecticut air pollution simulation model, the scale of the entire state was large compared to urban and coastline effects. For Metropolitan Toronto, the urban development and the lake front are both significant to the scale size of the region. This section addresses the heat island and land-water interface patterns which were analyzed only for the Toronto region.

In addition to linear superposition of thermal and topographic wind fields, it is assumed that distinct thermal effects can be separated from each other and that these effects are also additive. By identifying in the Toronto region, for example, separate "city heat island" and "lake breeze" effects, suitably representative ground temperature patterns may be established for each by using a minimum number of parameters.

g. Heat island

For a heat island, the temperature is assumed constant over the heat source area and is assumed to have different (lower) values at a suburban strip along the lake shore and on a perimeter that is far enough away to be unaffected by these heat sources. These temperatures are used as boundary conditions for the solution of the La Place equation

$$\nabla^2 T_g = 0, \qquad (11)$$

to determine the temperature field between the heat island and the remote perimeter.

The only free parameters are the center city temperature and the remote temperature (the suburban temperature anomaly is assumed to be proportional to that of the urban area). This pattern, combined with the lake-land temperature field described in the next section, reproduces the major characteristics of the climatological temperature fields observed for the Toronto region (Findlay and Hirt, 1969; Munn *et al.*, 1964.) The actual wind-field computation assumes a unit (city-remote) temperature. The perimeter is assumed to be experiencing a pure inflow; thus, it should be a line of non (horizontal) divergence. Accordingly, ϕ is zero on the perimeter as a boundary condition for the solution of the wind potential equation (8). The resultant potential field may be scaled by the actual assumed or measured city-remote temperature difference. That is,

$$\phi = \phi'(T_{\text{city}} - T_{\text{remote}}),$$

where ϕ' is the solution for a unit temperature difference.

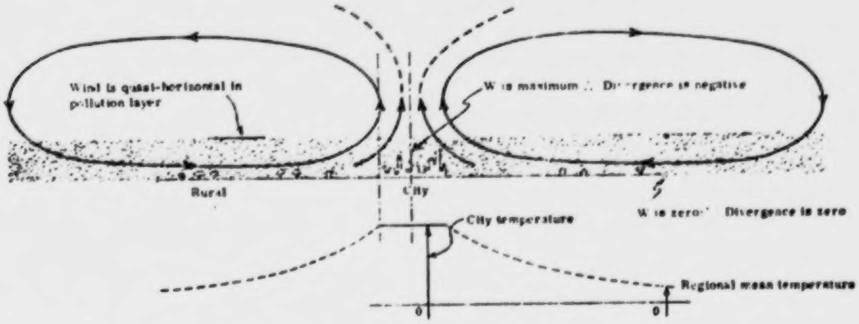
Wind is quasi-horizontal in pollution layer
W is maximum ∴ Divergence is negative
Rural
City
W is zero ∴ Divergence is zero
City temperature
Regional mean temperature
0
0

FIG. 2. Vertical section of heat island thermal circulation and the temperature distribution producing it.

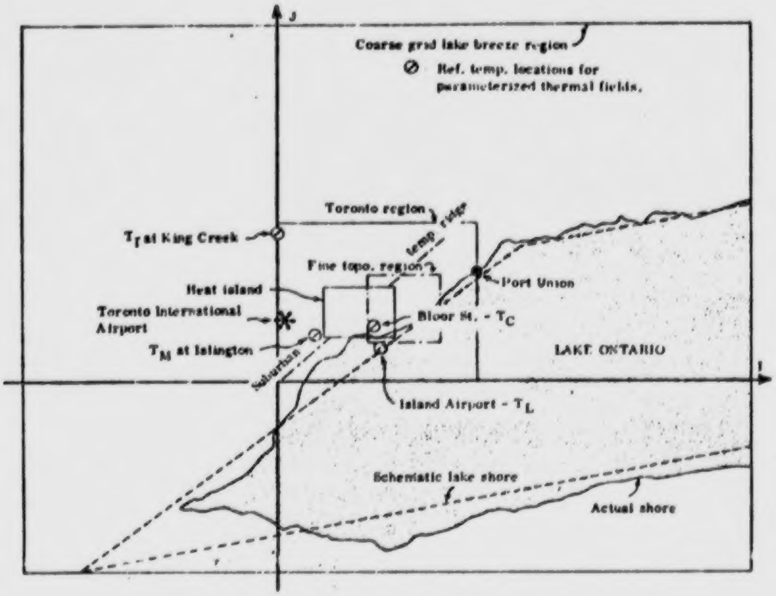

FIG. 3. Layout of regions for topographic and thermal wind-field analyses.

b. Lake breeze

The surface temperature is assumed to have a constant value over the water and another constant value over the land.

Since the thermal circulation cell analyzed is larger than the dispersion model region, finite values of the velocity disturbance potential should be expected on the region's boundaries. Thus, boundary conditions for the solution of (8) depend on the wind field outside the region. Further, the scale of the external effect is large compared to the dimensions of the analyzed region; therefore, the effect of errors in the boundary conditions might be expected to be observable well inside the region. That is, the "window frame" may be quite wide for the case of Metropolitan Toronto.

To provide more realistic boundary conditions, the thermal cell problem is solved on a much coarser grid for a much larger region. As an example, the region used in this study extended beyond the south shore of Lake Ontario and comparable distances in the other directions, as depicted in Fig. 3. Since the large region ought to more nearly match the extent of the overall thermal cell and since the Toronto region lay well in the interior of the larger region, the coarse-grid solution was deemed to provide realistic boundary conditions for the inner, fine-grid region. The ground temperature distributions assumed for the coarse-grid problem consisted of a constant temperature on the lake and a different constant temperature over the land. The lake geometry used is superimposed on a true outline of the lake in Fig. 3. Data required for the Toronto region consist of temperatures at the lake, and far inland.

3. Limitations and extensions

The analysis applies to problems that: 1) are substantially steady during many model time-steps, 2) exhibit spatial variability of topography or ground temperature at scales from regional-scale to grid-space-scale, 3) exhibit absolute topographic slopes that are much less than unity, 4) consider vertical scales small enough that pressure is substantially constant, and 5) consider advective velocities that are much larger than the relative velocities of diffusion across streamlines.

The major arbitrary assumptions are: 1) that the advective transport of pollutant can be meaningfully determined by a "bulk velocity" even though the advective trajectories vary with altitude (for "thin" pollution layers or "thick" velocity perturbation layers this assumption is irrelevant); 2) that local vertical thermal velocities are proportional to local ground temperature anomaly; and 3) that the ground temperature distribution can be adequately described by a limited parameter (variable data) pattern derived from climatology.

The constant pressure limitation suggests that this analysis is inapplicable to mountainous regions. It is suggested that replacing Eq. (1) with the compressible form of the conservation of mass equation would permit consideration of cases for which the Boussinesq approxi-

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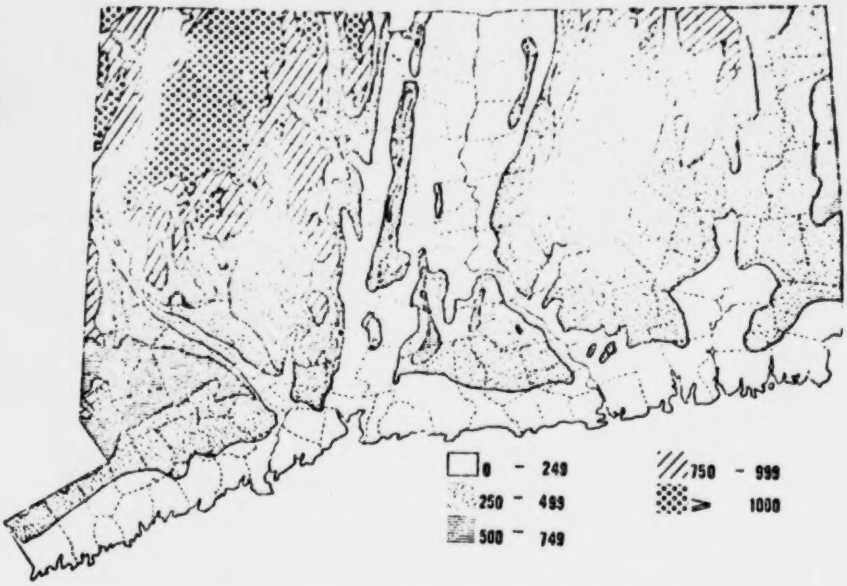

FIG. 4. Topography of Connecticut (elevation above sea level in feet).

mation is valid. In this case we have

$$\frac{\partial \rho u}{\partial x}+\frac{\partial \rho v}{\partial y}+\frac{\partial \rho w}{\partial z}=0, \tag{12}$$

or

$$\overline{\nabla\cdot\rho\mathbf{V}}\approx\bar{\rho}\,\overline{\nabla\cdot\mathbf{V}}=\frac{\rho(h)w(h)-\rho(H)w(H)}{H-h}. \tag{13}$$

The Boussinesq approximation is the restriction, for the momentum equation, of constant density except in the buoyancy term, where the hydrostatic approximation is used. Here then, in the mass continuity equation, only vertical, hydrostatic variations of air density are allowed. The density profile (in z) is known, and can be inserted in (13). This suggestion has not been examined thoroughly analytically nor tested numerically.

4. Computer calculations

Data manipulation and solution of the wind-field equations were accomplished by numerical operation with ANAL 70—a CEM developed programming language—on a UNIVAC 1108 computer. ANAL 70 is a sophisticated "hyperlanguage" that is oriented toward linear operations on multi-dimensional data arrays. Multiple arithmetic, topologic, tensor calculus, definitive, or output operations on complete multi-

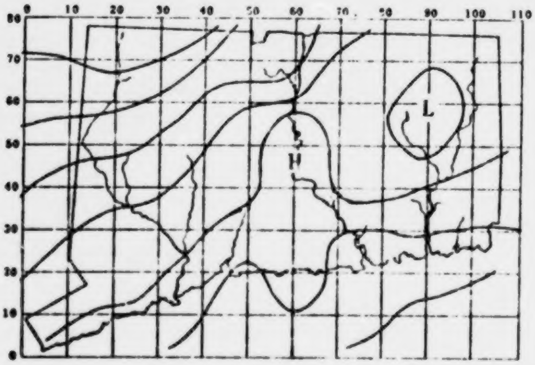

FIG. 5. Streamlines on Connecticut grid from interpolation between streamfunctions at 15 data stations.

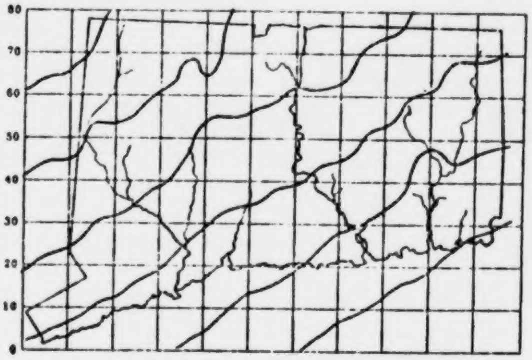

FIG. 6. Streamlines from topographic analysis of the same data as in Fig. 5.

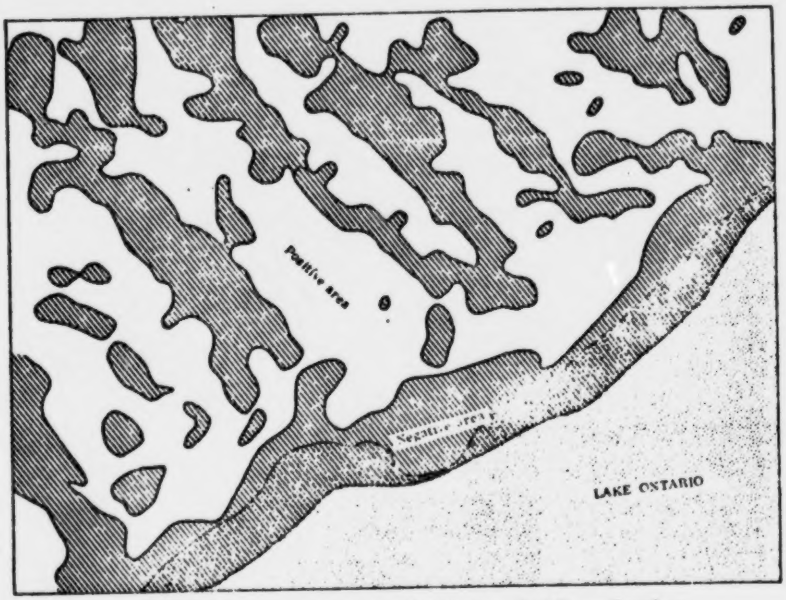

FIG. 7. Net topography relative to a highly smoothed "mean" surface for Toronto region.

dimensional arrays may be controlled by single ANAL 70 statements. For example, solution of a Laplace or Poisson equation as required in this work is effected by a single ANAL 70 statement. Programming (of a first-cut without de-bugging) of the total analysis requires only a few hours, and the program requires only a few seconds of 1108 computer time per time step.

The topography of Connecticut is shown, for reference, in Fig. 4, while Figs. 5 and 6 show the comparison of the present scheme with a conventional analysis of

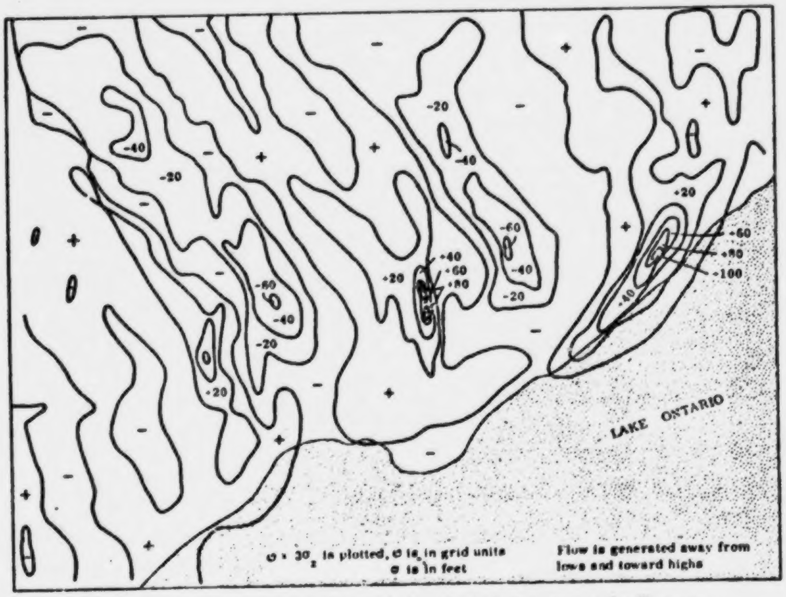
-20
-40
+
-
+20
-60
+40
+60
+80
-80
-100
LAKE ONTARIO
φ × 30$_z$ is plotted, φ is in grid units
σ is in feet
Flow is generated away from lows and toward highs

FIG. 8. Potential of topographically induced wind disturbance for Toronto region due to unit west wind.

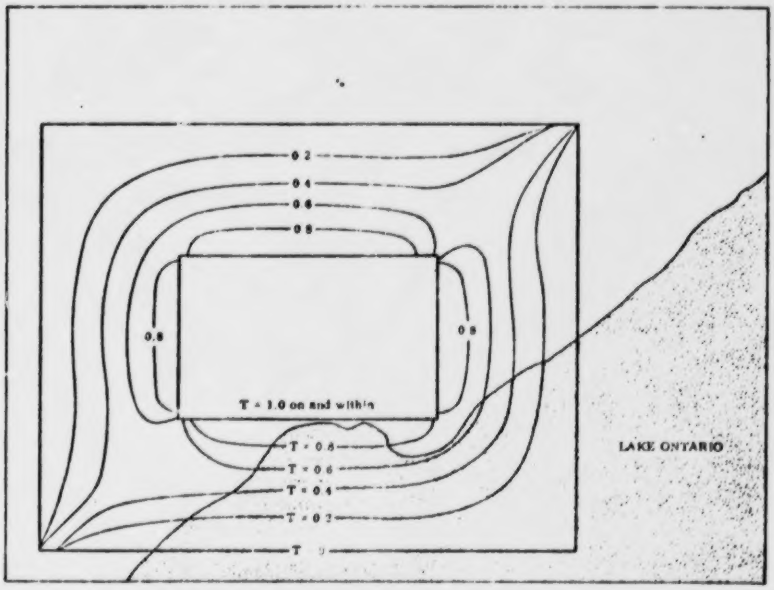

FIG. 9. Heat island temperature distribution for Toronto region.

surface wind observations for the state of Connecticut. Fig. 5 shows a conventional objective analysis which fit values of streamfunctions which were determined for each of 15 data stations. Fig. 6 shows the topographically determined wind field. The "objective" technique produces spurious closed circulation cells and much large-scale wave structure that is not consistent with observed wind fields above the surface layer. It shows no structure consistent with the topography. The topographic analysis, on the other hand, shows effects

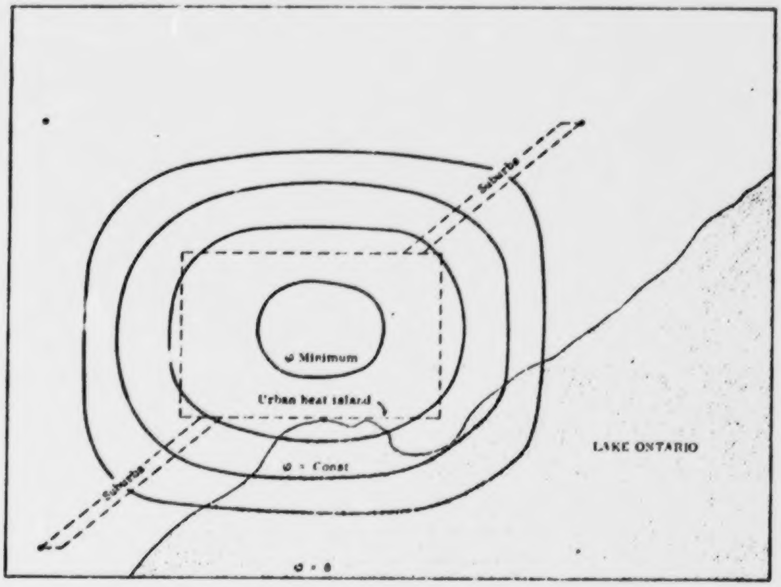

FIG. 10. Heat island disturbance potential for the Toronto region.

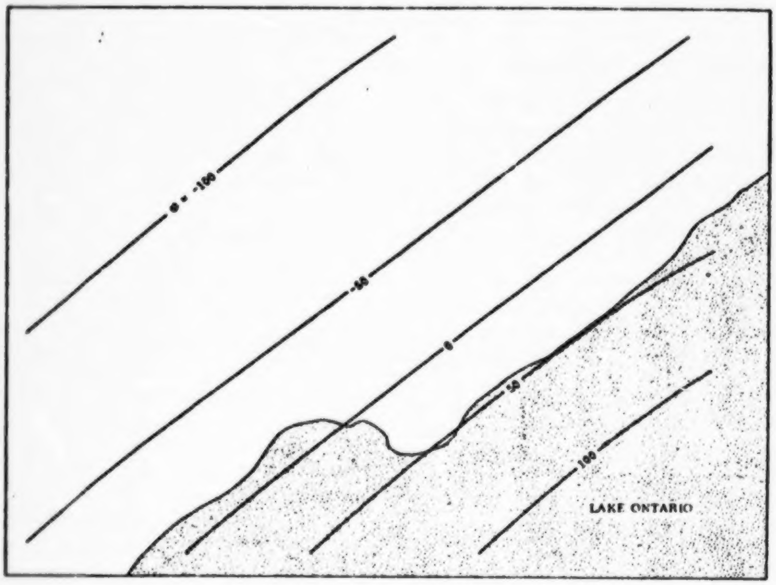

Fig. 11. Lake-breeze disturbance potential for Toronto region.

only on the scale of the Berkshire (western) and eastern hills and the Connecticut River Valley. All disturbances are small in the Long Island Sound and shore area.

Figs. 7–11 show computer-generated net (filtered) topography, the topographically induced potential wind field, and the heat island and lake breeze temperature and potential fields for the Toronto region. Fig. 12 shows a net wind field for the specific case of $\mathbf{U}=4\mathbf{i}+0\mathbf{j}$ (m $\sec^{-1}$), a west wind, $T_M=2C=T_{\text{land}}-T_{\text{lake}}$, $T_c=4C=T_{\text{city}}-T_{\text{remote}}$, and $\sigma_s=150$ m.

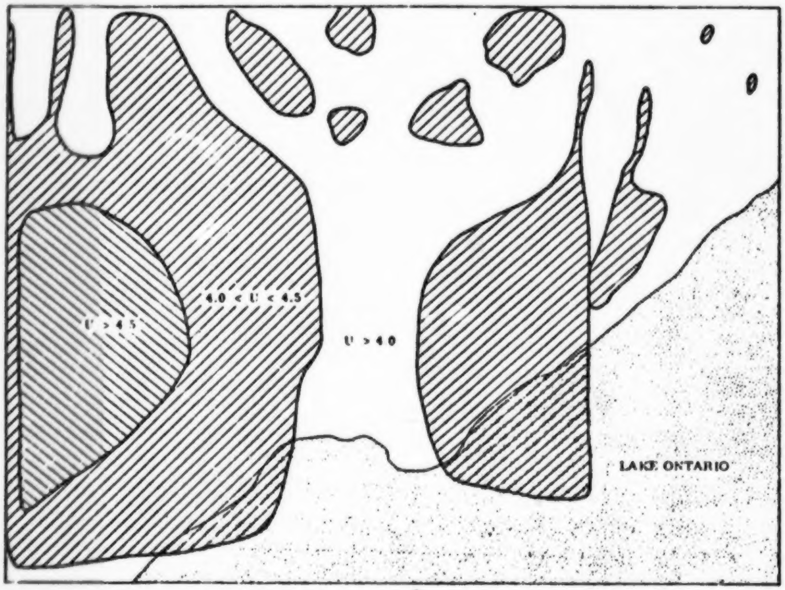

Fig. 12. West-wind component of net wind in Toronto region for 4 m $\sec^{-1}$ mean wind from west with topographic and thermal effects.

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The net wind field is calculated according to

$$\mathbf{V}=\overline{\nabla\phi_T}U, \tag{14}$$

where

$$\phi_T=\phi_{\text{Topography}}+\phi_{\text{Lake}}+\phi_{\text{Heat Island}}+\phi_{\text{Mean Wind}}. \tag{15}$$

For the Toronto case the topographic effect is seen to be minimal. There are few topographic features in the region with slopes on the order of σ_z/Δ (Δ is the grid spacing). From (8) it may be seen that slopes of this order are required to produce velocity changes that are a significant percentage of the mean wind velocity.

The bluffs along the lakeshore and some ravines more or less transverse to the coast are quite steep and represent significant height changes. Each is, however, a linear feature with transverse dimensions less than one grid spacing. As discussed in the previous section, subgrid-scale features are effectively filtered and thus contributed little to the computed wind-field perturbation.

To more clearly see the effect of these topographic features, a smaller region was defined encompassing only the urban center and some of the coastal bluffs. The dimensions of this area were one-third of those of the previously defined region, and the topography was read on a grid three times finer. The array unit dimensions were thus the same as for the large region. Stronger perturbations were noted with this calculation, but they were, naturally, confined to the immediate vicinity of the topographic disturbance. The effect on a trajectory crossing the disturbance was minimal. It may be noted that wind-field divergence is produced only by topographic gradients parallel to the mean wind, and therefore wind along a linear feature will produce no effect. If wind crosses a ravine, it diverges on the upwind bank and converges on the opposite slope. Thus, the net effect is not strong unless irregularities in the ravine topography meet the scale criteria discussed above. Wind crossing a bluff or cliff line experiences a simple expansion or contraction, but the streamlines downwind continue on parallel to the upwind direction.

Although the apparent changes in the wind field are small, and change the local trajectories little, the effect on long-distance trajectories can be significant. Since small perturbations integrated over long path lengths can produce large displacements, small changes in divergence patterns have much more influence near the beginning of a trajectory than they do further on.

The thermally induced wind fields are generally observed as components of more complex wind fields and, as discussed in the Introduction, observations are not generally valid in defining mesoscale wind fields. Therefore, there is little physical evidence upon which the present calculations may be judged. The patterns seem theoretically satisfactory and are consistent with such observations as exist. Validation of the pollution dispersion model would be, perhaps, the best test of the wind field analysis.

5. Conclusions

An objective analysis of mesoscale wind fields has been presented. The analysis makes use of precisely known physical characteristics (topography) and the geographic distribution of homogeneous surface temperature regions to reduce a previous dependence upon observational data of doubtful validity or applicability. Typically, as for Metropolitan Toronto, the only temporal data required are the mean, synoptic scale surface wind, and surface temperatures at three prescribed locations.

The wind fields computed by this analysis appear much more realistic than do wind fields produced by other objective analyses. The analysis is computationally simple, and the parameterized results can be linearly combined as required for real-time, forecast or hypothetical cases. Regional climatology would depend only on synoptic-scale wind roses and thus provides the only known objective scheme for regional air pollution climatology.

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Appendix B: Los Angeles Windfield ANAL70 Program Specifications

Definitions of required arrays

GRID	is basic analysis grid of 49 by 49. Point (1, 1) is at 118° 37' 13" W, 33° 34' 53" N.
GRID'	is a grid staggered with respect to GRID. Only interior points are included.
GRID"	is a grid staggered with respect to GRID'. It's intersections are thus on GRID intersections, but since only points interior to GRID' are included, the peripheral points of GRID are excluded.

Input Data

Read the data that is the same for all sets -

X (PLACES - vector of nine (9) X grid locations of temperature observing stations measured east of western edge.

Y (PLACES) - ditto, nine (9) Y locations measured N of southern edge.

H (X, Y) - 49 × 49 array of grid point topographic heights.

- Repeat • steps for each set.
- Read data for the current set -

VARIABLES

T (PLACES) - vector of temperatures observed at 9 places.

NW (X, Y) - temperature at sea and at NW corner; i.e., at (1, 31) and (1, 49).

SE (X, Y) - temperature at sea and at SE corner; i.e., at (43, 1) and (49, 1).

CONSTANTS

SEA - sea surface temperature

H' - height of top of inversion (over sea).

T' - potential temperature at top of inversion (over sea).

U_s - west wind component at sea.

V_a - south wind component at sea.

* * * * Compute Surface Temperature Distribution * * * *

- Subtract 1/3 of adiabatic lapse (i.e., from sea level to station altitude) from observed temperatures, giving estimated temperature for similar geographic location and similar surface thermal properties if the surface were at sea level.

- Define known data temperatures at proper grid points in GRID -

T(SEA) - temperature at X, Y's for which H = 0;
i.e., at all ocean gridpoints;
i.e., IF H(X, Y) = 0, T(X, Y) = SEA

T(SE) - linear increase in temperature from coast to SE corner along southern row;

$$\text{i.e., } T(X, 1)\Big|_{43}^{49} = SEA + \frac{X-43}{6}\,[T(49, 1) - SEA]$$

T(49, 1) = T (between SEA and Santa Anna)

T(NW) - linear increase in temperature from coast to NW corner along western column;

$$\text{i.e., } T(1, Y)\Big|_{31}^{49} = SEA + \frac{Y-31}{18}\,[T(1, 49) - SEA]$$

T(1, 49) = T(Burbank)

T(N) - constant temperature along northern row equal to that at NW corner;

i.e., T(X, 49) = T(1, 49)

T(E) - linear decrease in temperature along eastern column from NE corner to SE corner;

$$\text{i.e., } T(49, Y) = T(49, 1) + \frac{Y-1}{48}\,[T(49, 49) - T(49, 1)]$$

T - modified observed temperature at the 9 data stations;

i.e., At PLACES; T(X, Y) = T[X(PLACES), Y(PLACES)]

NOTE: Temperature not yet defined at remaining points.

- Temperature field initial fit

Keeping above defined temperatures as boundary values (internal and peripheral), solve $\nabla^2 T = 0$ at remaining points. Note that keeping ocean points at T(SEA) effectively moves the boundary to the shore.

- Compute ∇^2T at the 9 observing stations; i.e., at X(PLACES), Y(PLACES).

  (Note ∇^2T will be zero everywhere else except at shore; do not compute ∇^2T at shore).

- Repeat • • steps 10 times to smooth ∇^2T.

  Smoothing by interpolation spreads ∇^2T, the curvature of the T field, so that the total curvature is conserved, but is spread over an area around data points. The limits of the spread field expand radially one grid point per double interpolation. In each interpolation the function at a point on one grid is the average of the function values at the four (surrounding) nearest points of the other grid.

• • Interpolate ∇^2T onto GRID'.

• • Interpolate ∇^2T back onto GRID; $F_T(X, Y) = \nabla^2T$ smoothed.

- Re-solve temperature field from $\nabla^2T = F_T(X, Y)$.
- Add 1/3 of adiabatic lapse (up to altitude of each X, Y gridpoint) to each gridpoint temperature. Result is temperature field.

  $$T(X, Y) = T(X, Y) + .002\ H(X, Y)$$

) * * * * Compute Thermal Wind * * * *

- Compute $\left\{ \left| (T\text{-}SEA)/(T'\text{-}SEA) \right| H' - H \right\} = \Delta H\ (X, Y)$

  ΔH is the depth of the atmospheric mixing layer.

- Generate a mask array (GRID) with 1's where the mixing depth is negative (i.e., the topography penetrates the inversion base) and the temperature exceeds the sea temperature (i.e., if T - SEA is positive, the base of the inversion must be above sea level). MASK is zero elsewhere on GRID.
- Set ΔH <200 to 200: i.e., set a minimum ΔH.

- Compute thermal forcing function where MASK is zero

  $$F_T(X, Y) = -\ \alpha (T\text{-}SEA)/(\Delta H/2)$$

The constant empirically relates the updraft to the temperature;

$$\alpha = \frac{w}{T - SEA} .$$

- Compute thermal boundary conditions.

  1) At W and S boundaries, assume all divergence is along boundaries Divergence across these boundaries is zero. These are boundaries along which significant thermal gradients exist. Isotherms are substantially normal to the boundaries. There is no observational data for thermal gradients across these boundaries.

  2) Assume divergence along N boundary is zero, since N boundary has already been assumed to be isothermal (except for small altitude effect).

  3) Assume velocity ($\nabla\phi$) across N boundary at X = 25 is zero. Thus N boundary is a pure updraft zone of maximum convergence. This assumes that surface temperatures north of the region do not greatly exceed those at the northern edge of the region. Observational data is absent outside the region.

  4) Assume the intersections of the coastline with the W and S boundaries are at equal potential. Solve (integrate $\nabla^2\Phi = F_T$) for each boundary:

at W boundary:

$$\Phi(1,1) = 0 ; \quad \frac{\partial\Phi}{\partial y} (1,49) = 0 ;$$

$$\therefore \Phi(1,1) = -(y-1) \int_1^{49} F_T(25,y)dy + \int_1^y \int_1^y F_T(1,y)dydy ;$$

at N boundary:

$$\Phi(x,49) = \Phi(1,49) ,$$

i.e, constant value from NW corner is used along N;

at S boundary:

$$\Phi(1,1) = 0$$

$$\Phi(43,1) = \Phi(1,31) ,$$

i.e., Φ is equal at coastal points,

$$\therefore \Phi(x,1) = \frac{x-1}{42} - 30\int_{1}^{49} F_T(1,y)dy + \int_{1}^{31}\int_{1}^{y} F_T(1,y)dydy - \int_{1}^{43}\int_{1}^{x} F_T(x,1)dxdx + \int_{1}^{x}\int_{1}^{x} F_T(x,1)dxdx ;$$

at E boundary:

$$\Phi(49,y) = \Phi(49,1) + [\Phi(49,49) - \Phi(49,1)] \cdot \left\{ \frac{(y-1)\int_{1}^{49} \frac{\partial^2\Phi}{\partial y^2}(49,y)dy - \int_{1}^{y}\int_{1}^{y} \frac{\partial^2\Phi}{\partial y^2}(49,y)dydy}{48\int_{1}^{49} \frac{\partial^2\Phi}{\partial y^2}(49,y)dy - \int_{1}^{49}\int_{1}^{y} \frac{\partial^2\Phi}{\partial y^2}(49,y)dydy} \right\} .$$

- Solve Poisson equation $\nabla^2 \Phi_T = F_T$ for thermal wind potential.

) * * * * Compute Topographic Wind * * * *

- Add synoptic (at sea) surface wind to thermal wind

$$U = U_s + U_T = \nabla_x\Phi$$

$$V = V_s + V_T = \nabla_y\Phi .$$

- At inversion mask, set $\Delta H = -600$ to represent extreme damping of vertical motion.

- Compute gradient of topographic height, $\nabla(-\Delta H/2)$.

- Compute local vertical component of surface wind due to topography.

$$\nabla\Phi \cdot \nabla(-\Delta H/2) .$$

- Set minimum of $\Delta H/2$ to 100.

- Compute topographic forcing function $w_{TOP}/\Delta H/2 = F_{TOP}$

- Compute net flow boundary conditions

$$\Phi_{BC} = U_s X + V_s Y + \Phi_T$$

- Solve Poisson equation $\nabla^2\Phi = F_{TOP}$ for resultant wind potential.

- Compute gradient of resultant wind potential to give resultant wind vector.

$$\vec{V} = \nabla\Phi$$

- Return to beginning of loop

End

Appendix C: Poisson Surface Data Fitting Technique

It was desired to provide an interpolative (surface fitting) scheme for defining two-dimensional fields consistent with data observed at a sparse set of randomly located stations. The specific application for which an interpolation was desired was the surface temperature distribution in the Los Angeles basin. The mesoscale windfield analysis described in the body of this report requires a surface temperature distribution as a forcing function for the thermal perturbation of the wind.

In the Los Angeles experiment, surface temperatures were taken at nine (9) observing stations. Although the stations were not located on any regular grid pattern, they were well spread over the 50 x 50 mile experiment region. A significant portion of the experimental region is ocean surface. Although sea surface temperature observations were not available, sea surface climatology for the region shows the temperature is exceedingly steady in time and uniform in space. The assumption was made that all ocean grid points were at 64°F during the test period. Four general types of interpolative techniques were noted that have been used widely for analyzing gridded fields from observed data. They are -

- Statistical fits - e.g., "least squares" fits of the constants of a chosen functional form (often plane surfaces).
- Influence factor fits - the value of the field at any grid point is the sum of "contributions" from each data point, where each contribution is the value at the data point weighted by some functional of the distance between the data point and the grid point in question.

- Spectral fits - whereby a family of surfaces of a periodic functional form (sine and cosine waves for Fourier analysis) is spectrally weighted to provide a desired degree of approximation to the data points. Spectral filtering is often used to limit the family "membership" and/or to specify the data fitting accuracy required.

- Boundary value fits - the value of the field at any grid point is the solution of an equation given the data points as boundary values.

Each of these approaches offers advantages for certain classes of problems. Statistical fits are used where there are many more data points than there are acceptable degrees of freedom in the fit surface. Influence factor approaches seem appropriate when they represent a conceptual model; that is, the field at one location is seen to actually depend on the field shape at points beyond the nearest neighbor data point. Spectral fits are generally used when there are not only many more data points than acceptable degrees of freedom, but there are also many realizations of each degree of freedom (i.e., many wave lengths) within the analyzed region.

Several facts and assumptions about the surface temperature observations in the Los Angeles region suggest that the last scheme, the boundary value fit, would be more appropriate than the other schemes described.

It is assumed here that "noise" in the data is not great, and need not be filtered. Certainly the observational noise is very small - thermometers are very accurate - while sub-grid scale variability of the temperature field does exist, subjective examination of the data suggests that for this application the variability is much less than the temperature differences between observation stations. Thus, we want a surface that goes exactly through the data points, introduces no degrees of freedom not required by the data, and allows each data point to influence the field very strongly in its own neighborhood.

The scheme developed fulfills these requirements. The equation

$\nabla^2 T = F(X,Y)$ is solved with T

held fixed at all known or assumed interior data points and at peripheral points. Specification at data points allows a perfect fit of the data while the form of the equation and the specification of $F(X,Y)$ (given below) assure that only enough degrees of freedom to fit the data are allowed. Specification of peripheral values lends an arbitrariness to the scheme, but seems consistent with the view that no analytic scheme can be known to be correct near a region where data is not available. Therefore, boundary values which simply preserve the essentials of the interior of the region do the least violence to our sensibilities.

It is desired to define a forcing function, $F(X,Y)$, that reduces the surface curvature, $\nabla^2 T$ as much as possible in the neighborhood of each data point while allowing "smooth" transitions between neighborhoods. That is, neighboring points should determine surface slopes in intervening regions, but surface curvature should be small everywhere. To accomplish this, we first solve the Laplace equation -

$$\nabla^2 T = 0 \quad \text{(T specified at data points and periphery)}$$

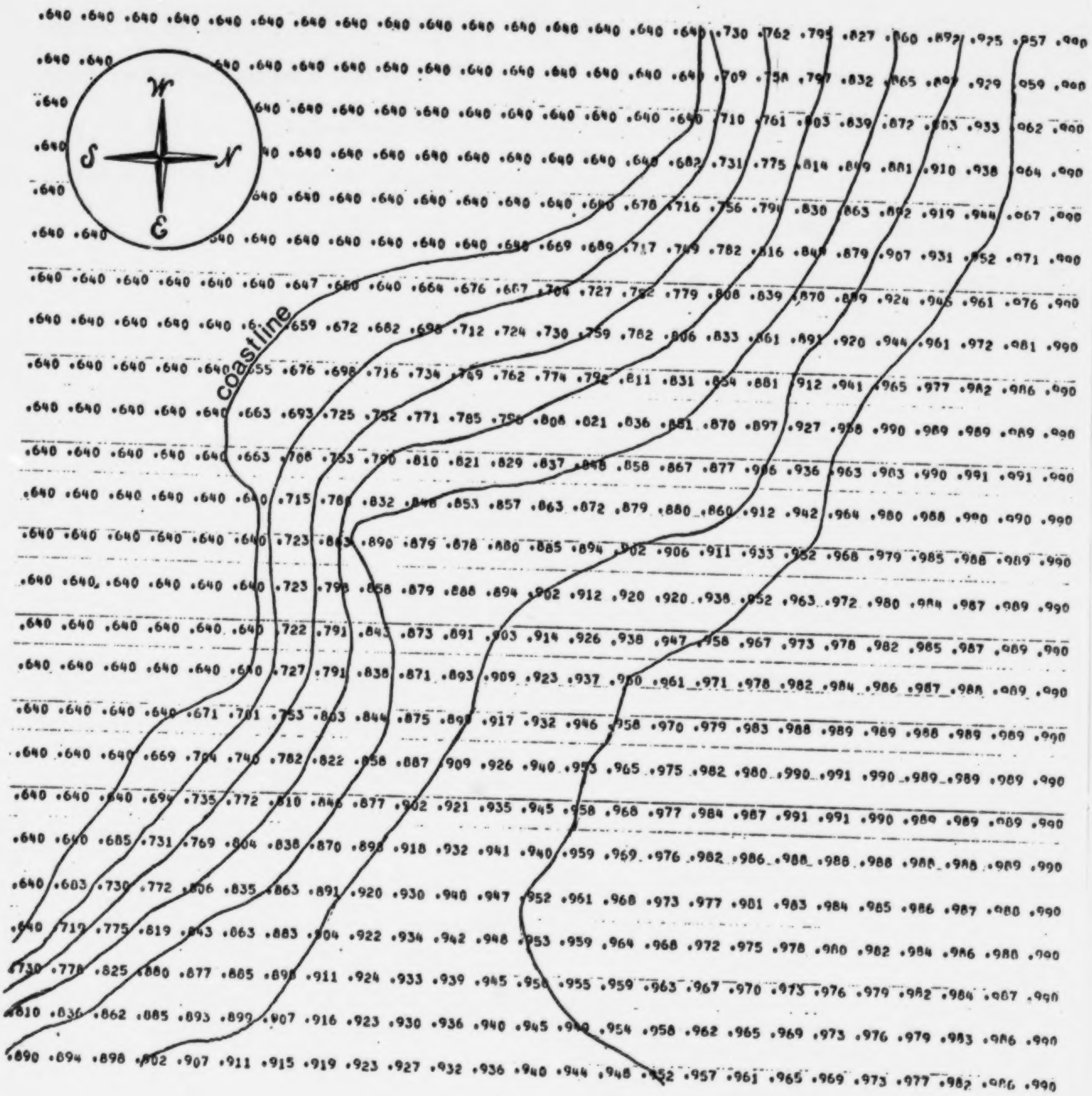
and then compute the Laplacian at the data points (it is necessarily zero elsewhere). Repeated smoothing of the point values of $\nabla^2 T$ is carried out by an operation which preserves total curvature. This then produces a distribution of surface curvature which, in a region about any data point, is proportional to the deviation of that data point from a mean surface. The smoothing algorithm used first defines the value at the center of each grid cell to be the average of the values at each corner of that cell. Next, the value at each grid intersection is the average of the values at centers of the four adjacent cells. Each pass through this smoothing operation spreads the same total surface curvature to a region one grid square larger all around. The smoothing is repeated for a number of times equal to the average spacing between data points.

Trials of this technique on Los Angeles temperature data gave temperature distributions qualitatively consistent with subjective analyses, with somewhat more detail, i.e., smaller scale content, in the patterns.

A typical computed temperature field is shown in Figure C-1.

Several manually drawn isotherm maps from the same data all showed much the same qualitative characteristics, but the variations between manually contoured maps were comparable to the difference between each and the analytical map.

Required computer time for a 49 × 49 grid (2401 grid points) with an ANAL70 program on an 1108 is about 10 secs.



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.640	.640			640	.640	.640	.640	.640	.640	.640	.640	.640	.640	.640	.640	.709	.758	.797	.832	.865	[illegible]	.929	.959	.990
.640					640	.640	.640	.640	.640	.640	.640	.640	.640	.640	.640	.710	.761	.803	.839	.872	.903	.933	.962	.990
.640					40	.640	.640	.640	.640	.640	.640	.640	.640	.640	.682	.731	.775	.814	.849	.881	.910	.938	.964	.990
.640					640	.640	.640	.640	.640	.640	.640	.640	.640	.678	.716	.756	.794	.830	.863	.892	.919	.944	.967	.990
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.640	.640	.640	.640	.640	.655	.676	.698	.716	.734	.749	.762	.774	.792	.811	.831	.854	.881	.912	.941	.965	.977	.982	.986	.990
.640	.640	.640	.640	.640	.663	.693	.725	.752	.771	.785	[illegible]	.808	.821	.836	.851	.870	.897	.927	.958	.990	.989	.989	.989	.990
.640	.640	.640	.640	.640	.663	.708	.753	.790	.810	.821	.829	.837	.848	.858	.867	.877	.906	.936	.963	.983	.990	.991	.991	.990
.640	.640	.640	.640	.640	.640	.715	.780	.832	.848	.853	.857	.863	.872	.879	.880	.860	.912	.942	.964	.980	.988	.990	.990	.990
.640	.640	.640	.640	.640	.640	.723	.863	.890	.879	.878	.880	.885	.894	.902	.906	.911	.933	.952	.968	.979	.985	.988	.989	.990
.640	.640	.640	.640	.640	.640	.723	.798	.858	.879	.888	.894	.902	.912	.920	.920	.938	.952	.963	.972	.980	.984	.987	.989	.990
.640	.640	.640	.640	.640	.640	.722	.791	.843	.873	.891	.903	.914	.926	.938	.947	.958	.967	.973	.978	.982	.985	.987	.989	.990
.640	.640	.640	.640	.640	.640	.727	.791	.838	.871	.893	.909	.923	.937	.950	.961	.971	.978	.982	.984	.986	.987	.988	.989	.990
.640	.640	.640	.640	.671	.701	.753	.803	.844	.875	.890	.917	.932	.946	.958	.970	.979	.983	.988	.989	.989	.988	.989	.989	.990
.640	.640	.640	.669	.704	.740	.782	.822	.858	.887	.909	.926	.940	.953	.965	.975	.982	.980	.990	.991	.990	.989	.989	.989	.990
.640	.640	.640	.694	.735	.772	.810	.846	.877	.902	.921	.935	.945	.958	.968	.977	.984	.987	.991	.991	.990	.989	.989	.989	.990
.640	.640	.685	.731	.769	.804	.838	.870	.898	.918	.932	.941	.940	.959	.969	.976	.982	.986	.988	.988	.988	.988	.988	.989	.990
.640	.683	.730	.772	.806	.835	.863	.891	.920	.930	.940	.947	.952	.961	.968	.973	.977	.981	.983	.984	.985	.986	.987	.988	.990
.640	.719	.775	.819	.843	.863	.883	.904	.922	.934	.942	.948	.953	.959	.964	.968	.972	.975	.978	.980	.982	.984	.986	.988	.990
.730	.778	.825	.880	.877	.885	.898	.911	.924	.933	.939	.945	.950	.955	.959	.963	.967	.970	.973	.976	.979	.982	.984	.987	.990
.810	.836	.862	.885	.893	.899	.907	.916	.923	.930	.936	.940	.945	.949	.954	.958	.962	.965	.969	.973	.976	.979	.983	.986	.990
.890	.894	.898	.902	.907	.911	.915	.919	.923	.927	.932	.936	.940	.944	.948	.952	.957	.961	.965	.969	.973	.977	.982	.986	.990

Figure C-1. Isotherms (°F) × 10^{-2} in Los Angeles Basin.

Appendix D: Computer Output

Contained herein is a set of results of windfield analyses for thirteen (13) consecutive hourly periods from 5:00 am to 5:00 pm on 29 September 1969, and one for 6:00 am 30 September 1969. The first sheet is a listing of the ANAL70 program. The next 56 sheets are reproductions of computer printout of (x,y) gridpoint values of four variables for each time period. Each sheet has a computer printed label containing:

1) the number of the case (SETS = 1 is 5:00 am, etc.);

2) the variable name -

   T = temperature field (°F) fitted to the 9 data points,
   PHI = computed velocity potential,
   V = the south wind component in m/sec,
   U = the west wind component in m/sec;

3) a power-of-ten scaling factor; and

4) the names of the independent variables, x and y, in each case.

The format for all printouts is the same. The 25 × 25 array represents the values of the variable on a grid consisting of every other computed point. North is to the right. On the PHI, U, and V printouts, zeroes are printed where the topographic surface lay above the inversion base, and the ground temperature, simultaneously, is above the sea surface temperature.

Finally, there are fourteen (14) computer-drawn maps, for the same cases showing -

1) topographic contours at 500 ft intervals, the first being the coastline;

2) grid lines where inversion restricts flow;

3) wind vectors at alternate grid points - scale may be determined from grid-line interval (vector one interval long represents a wind of one m/sec).

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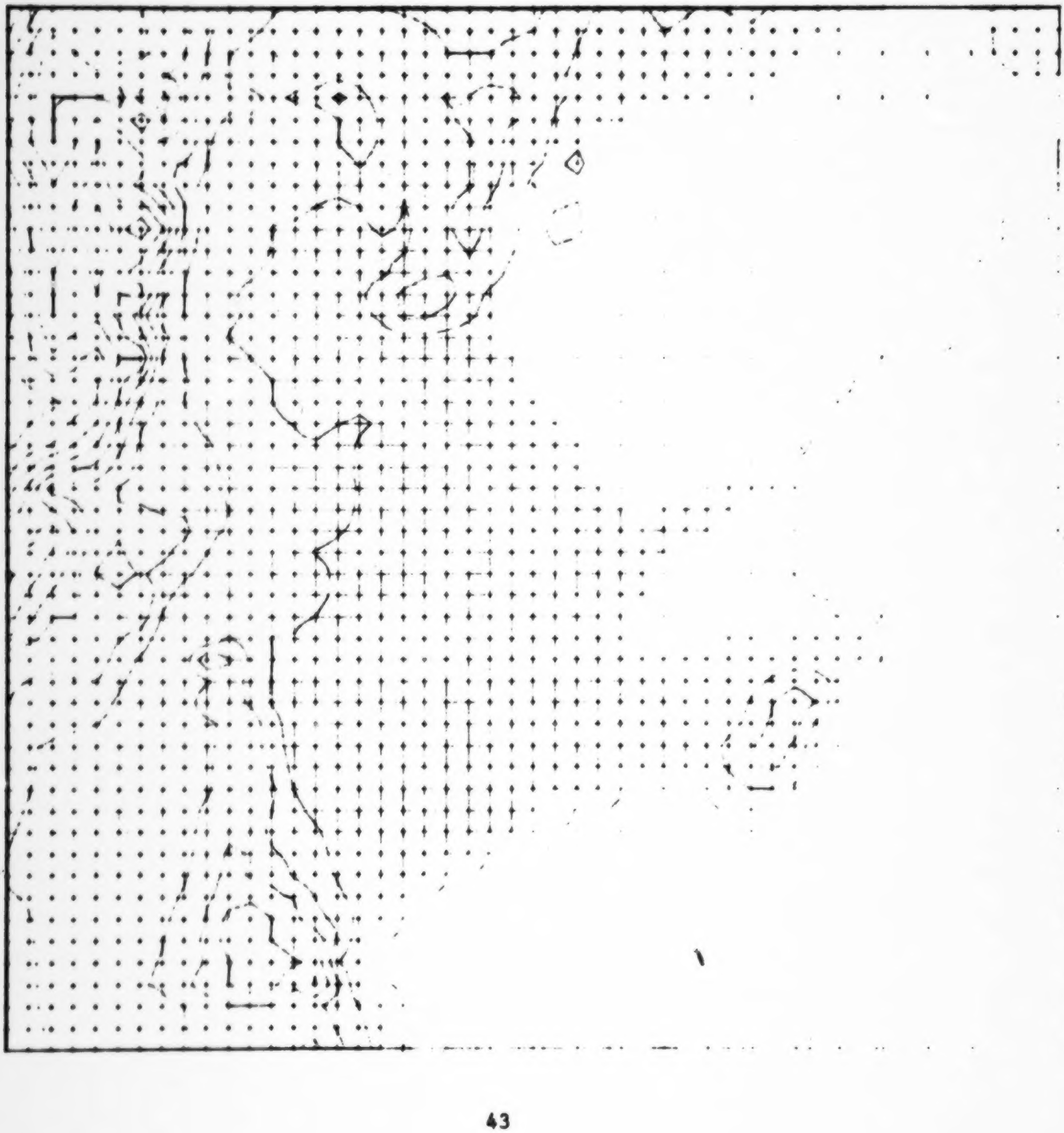

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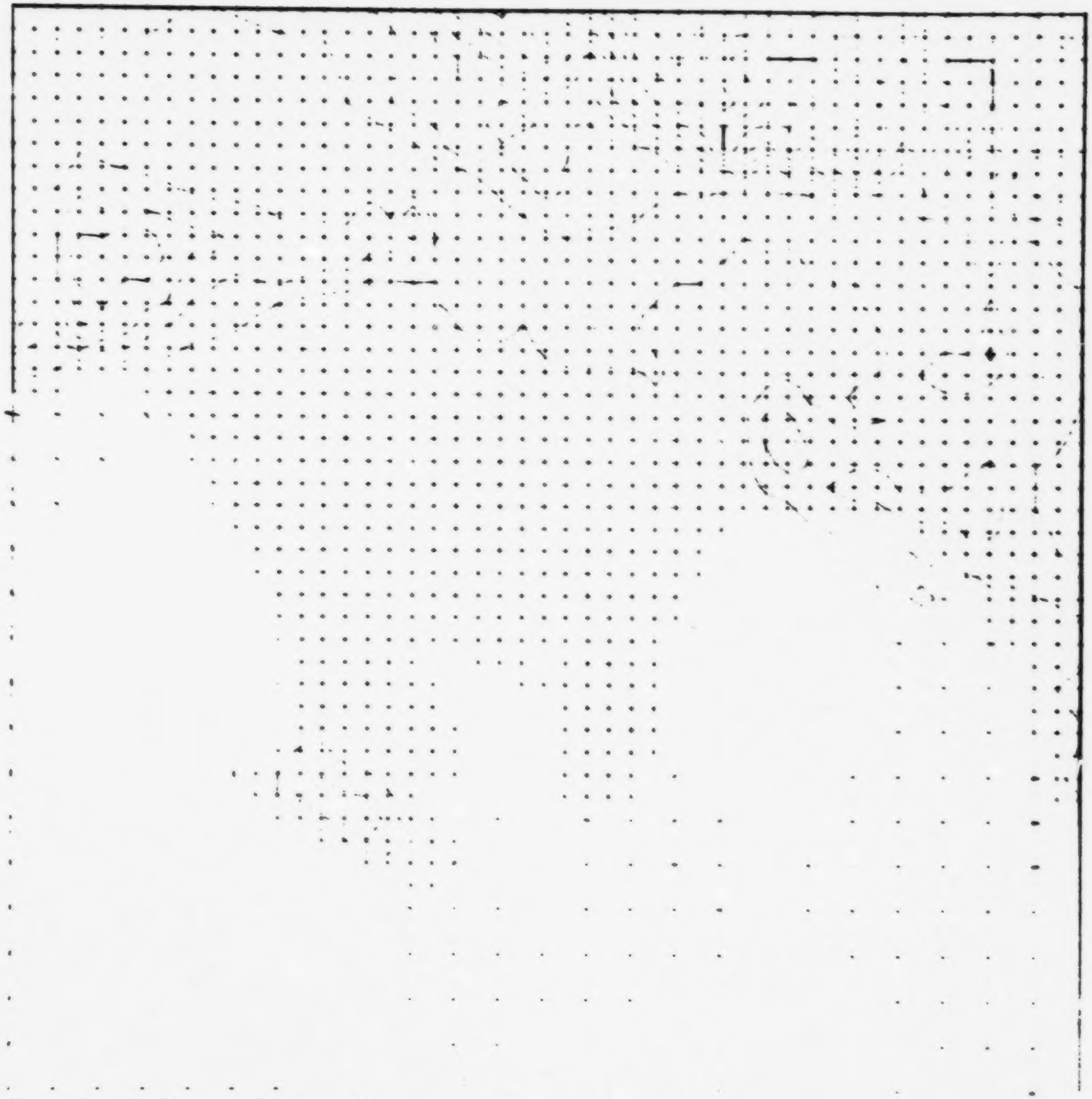

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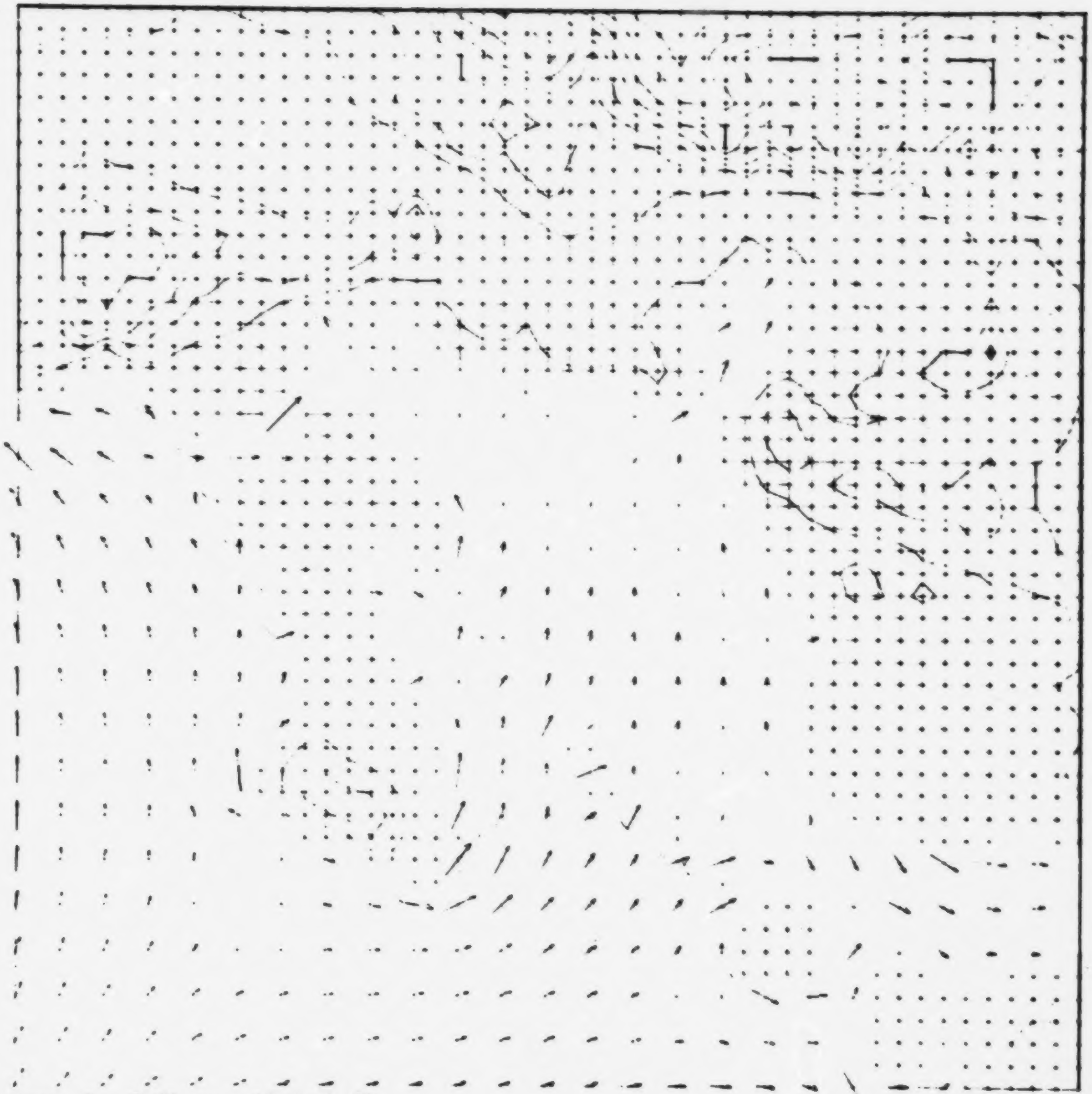

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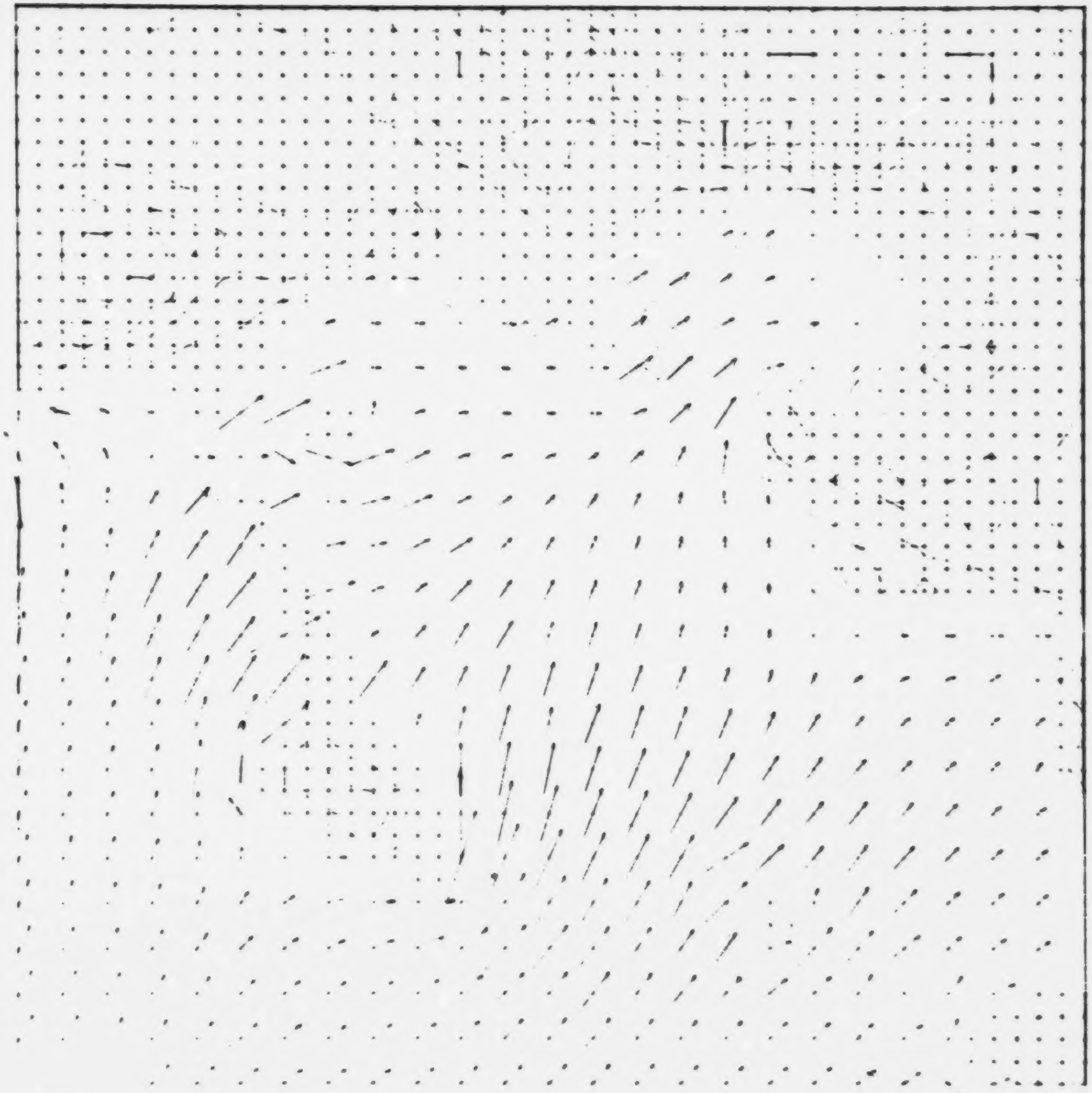

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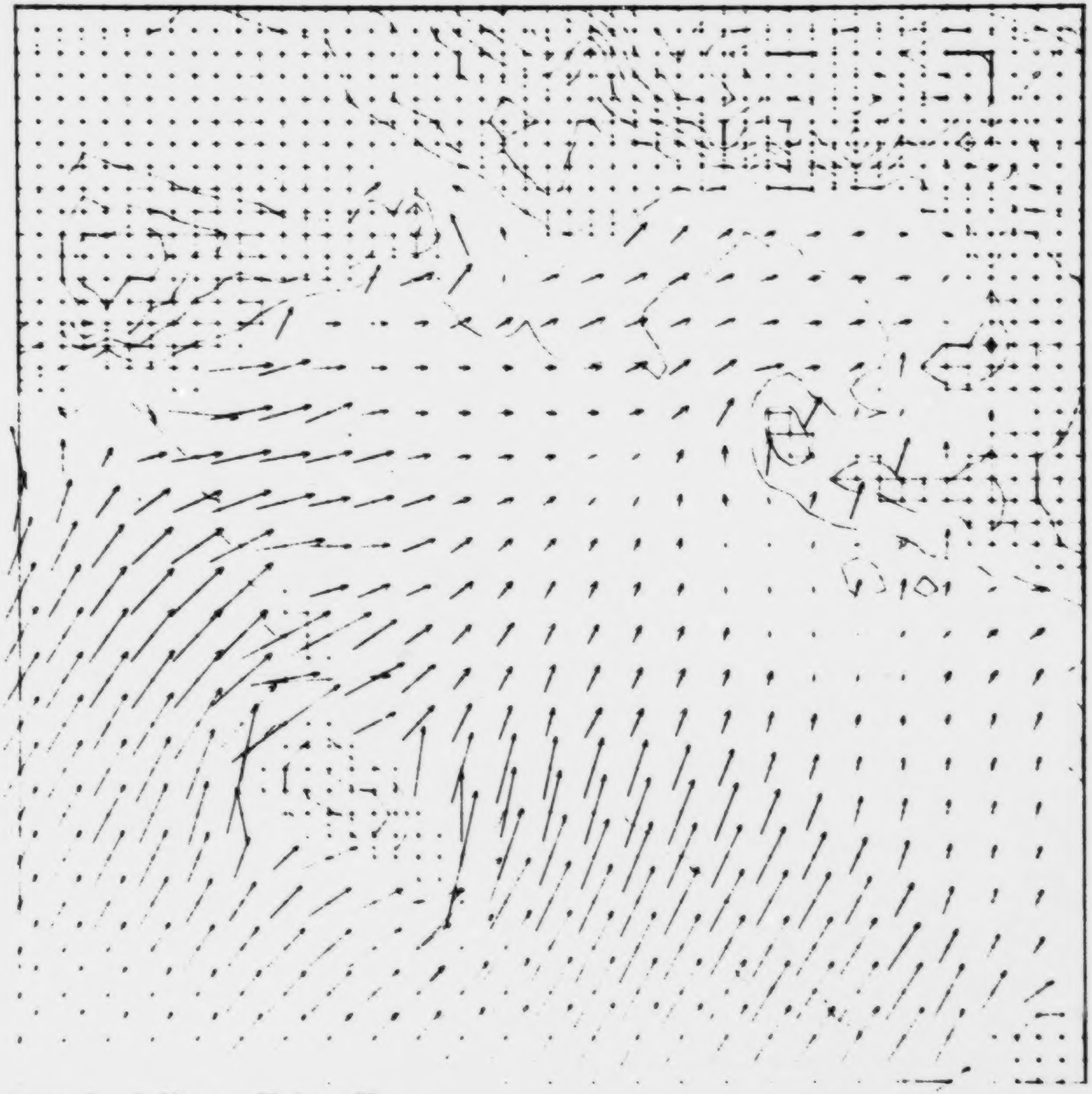

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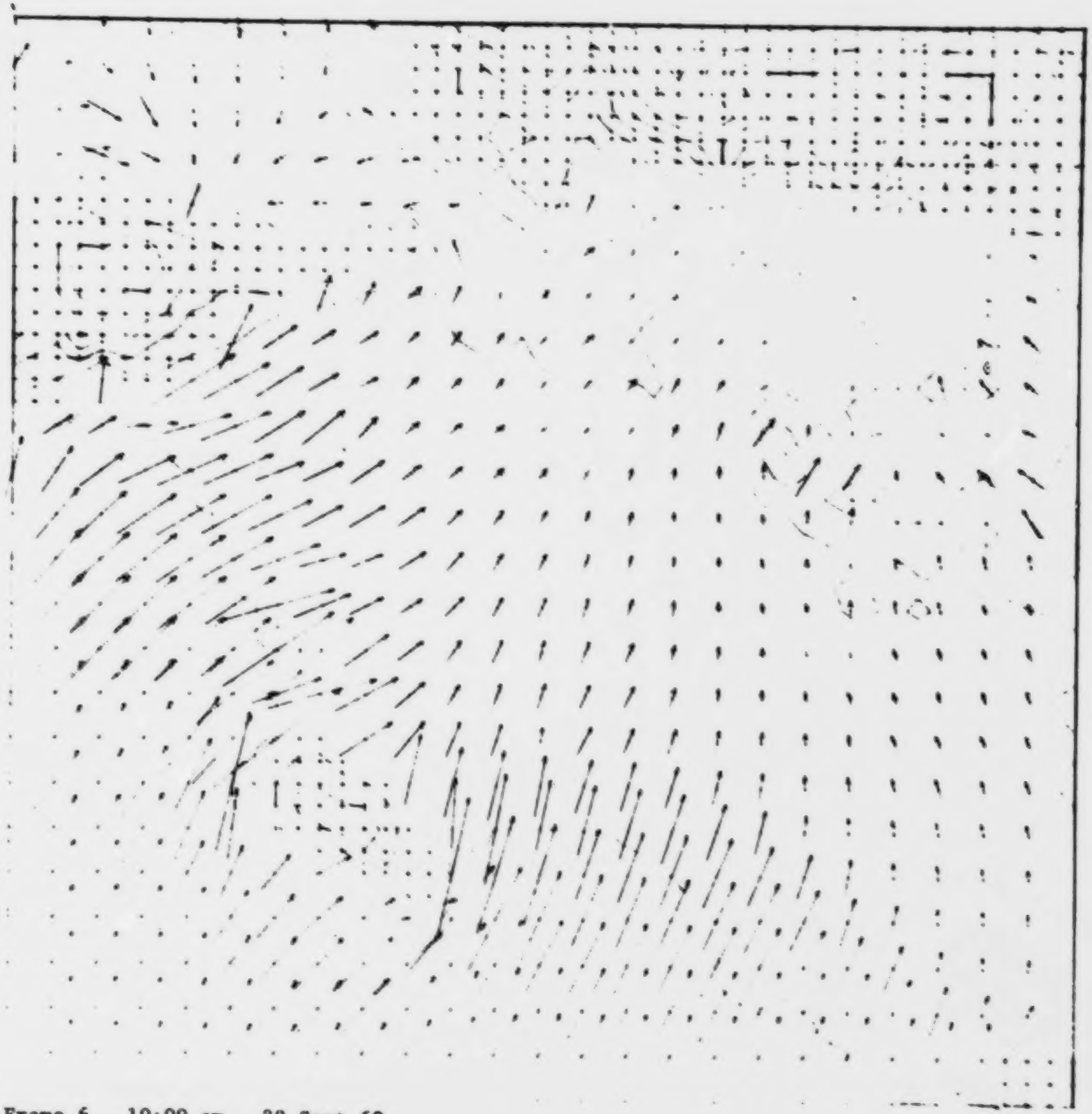

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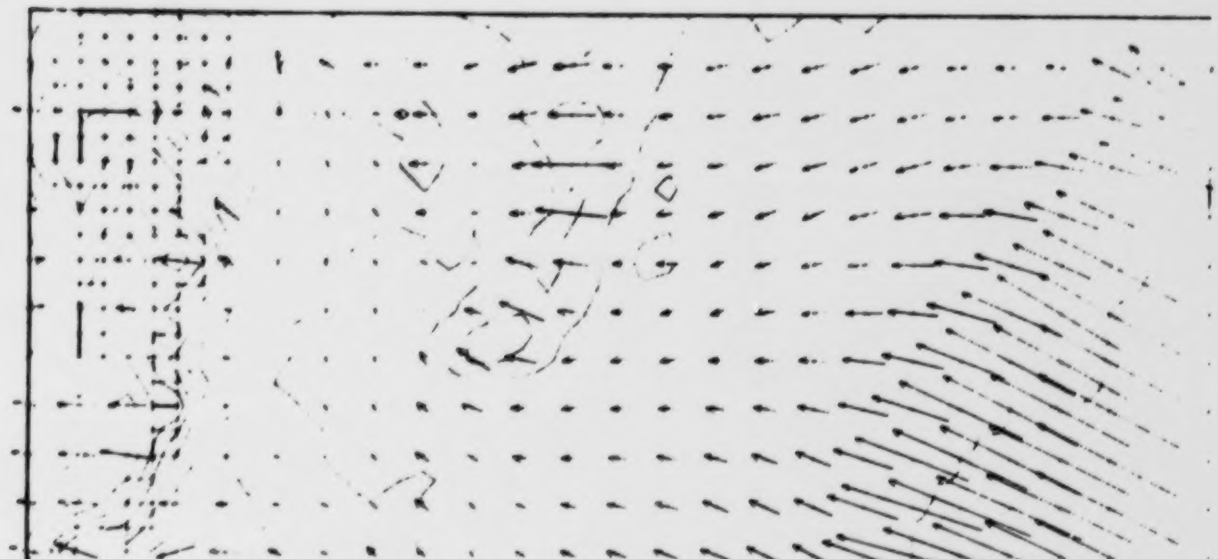

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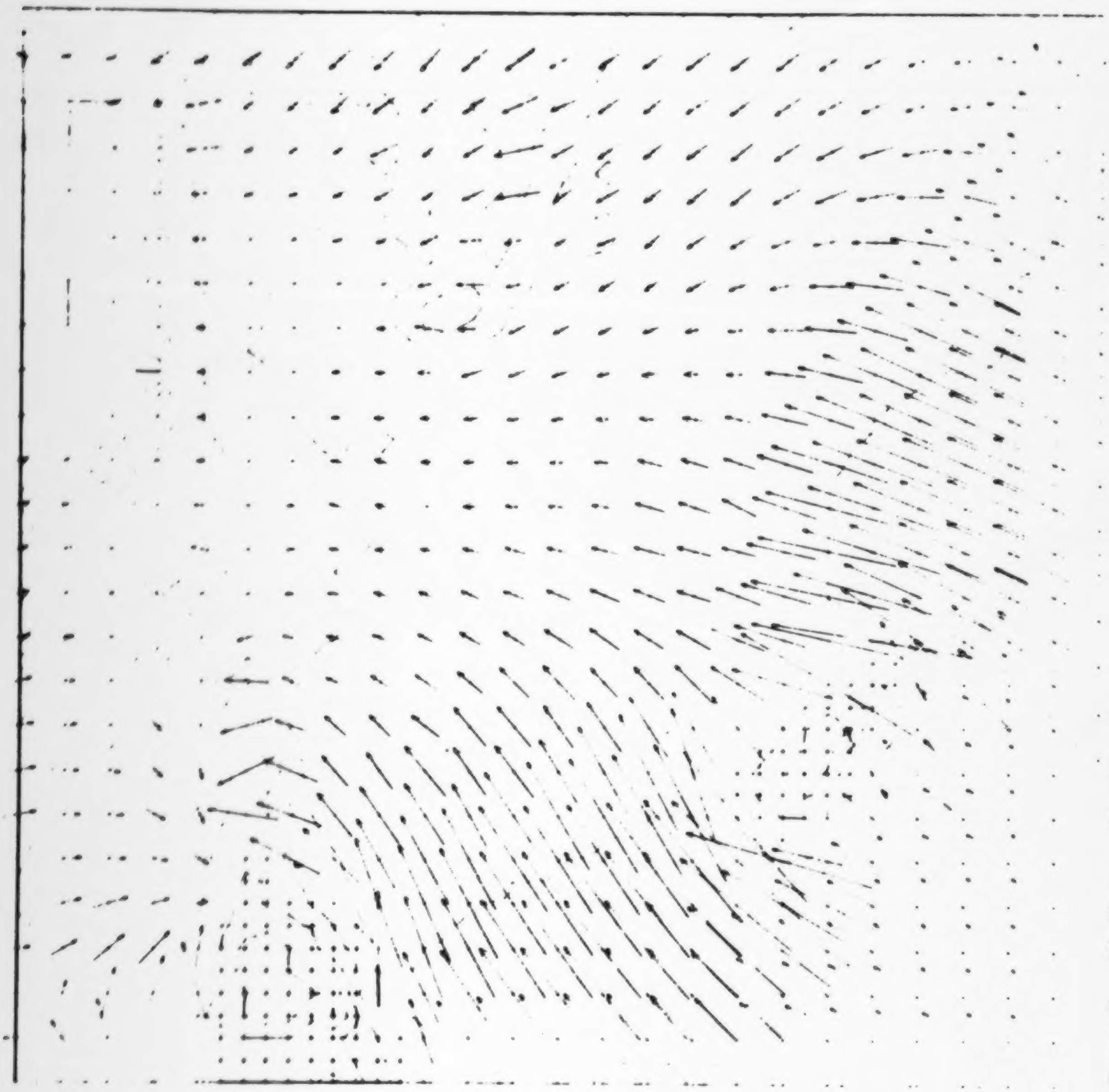

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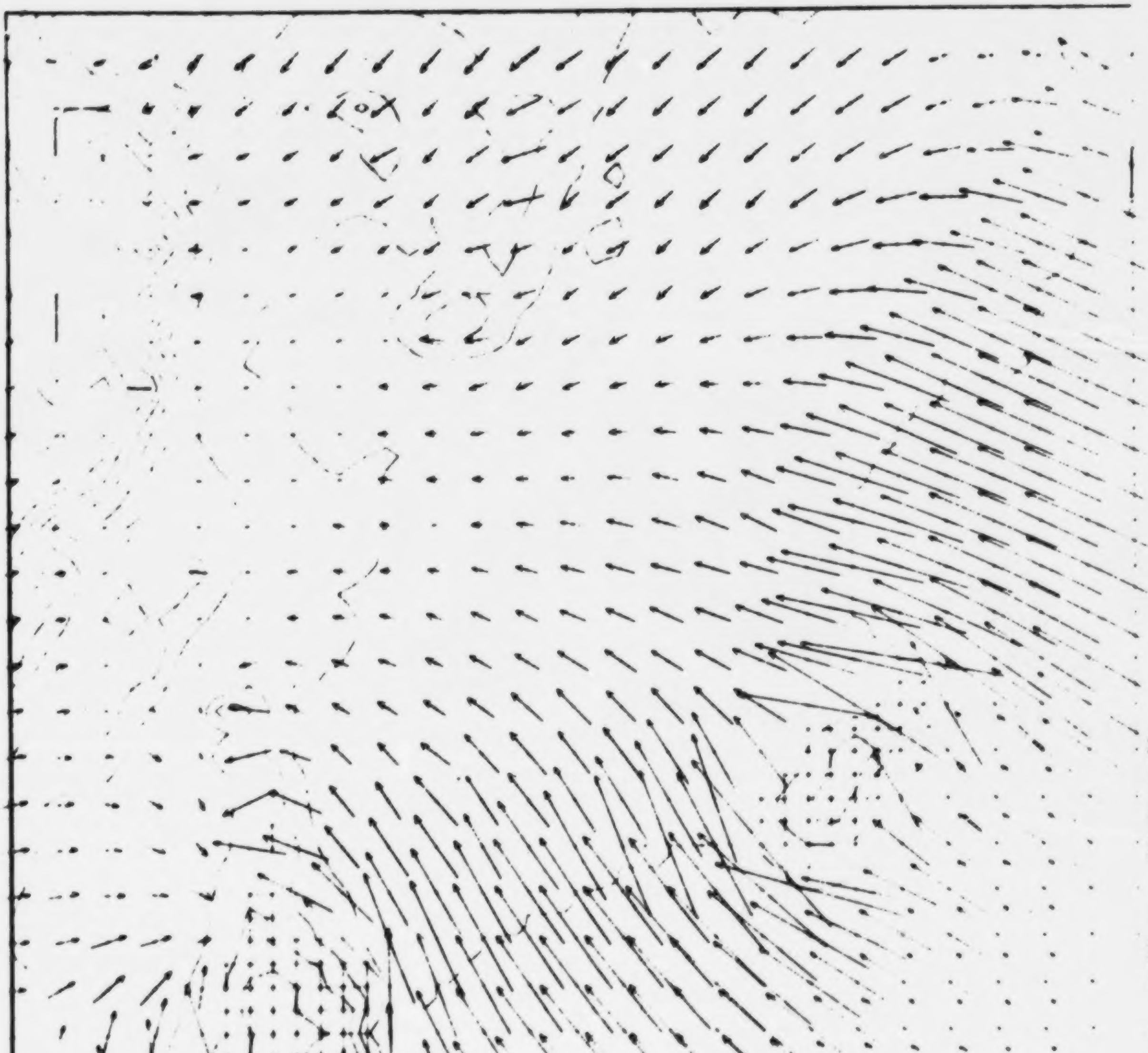

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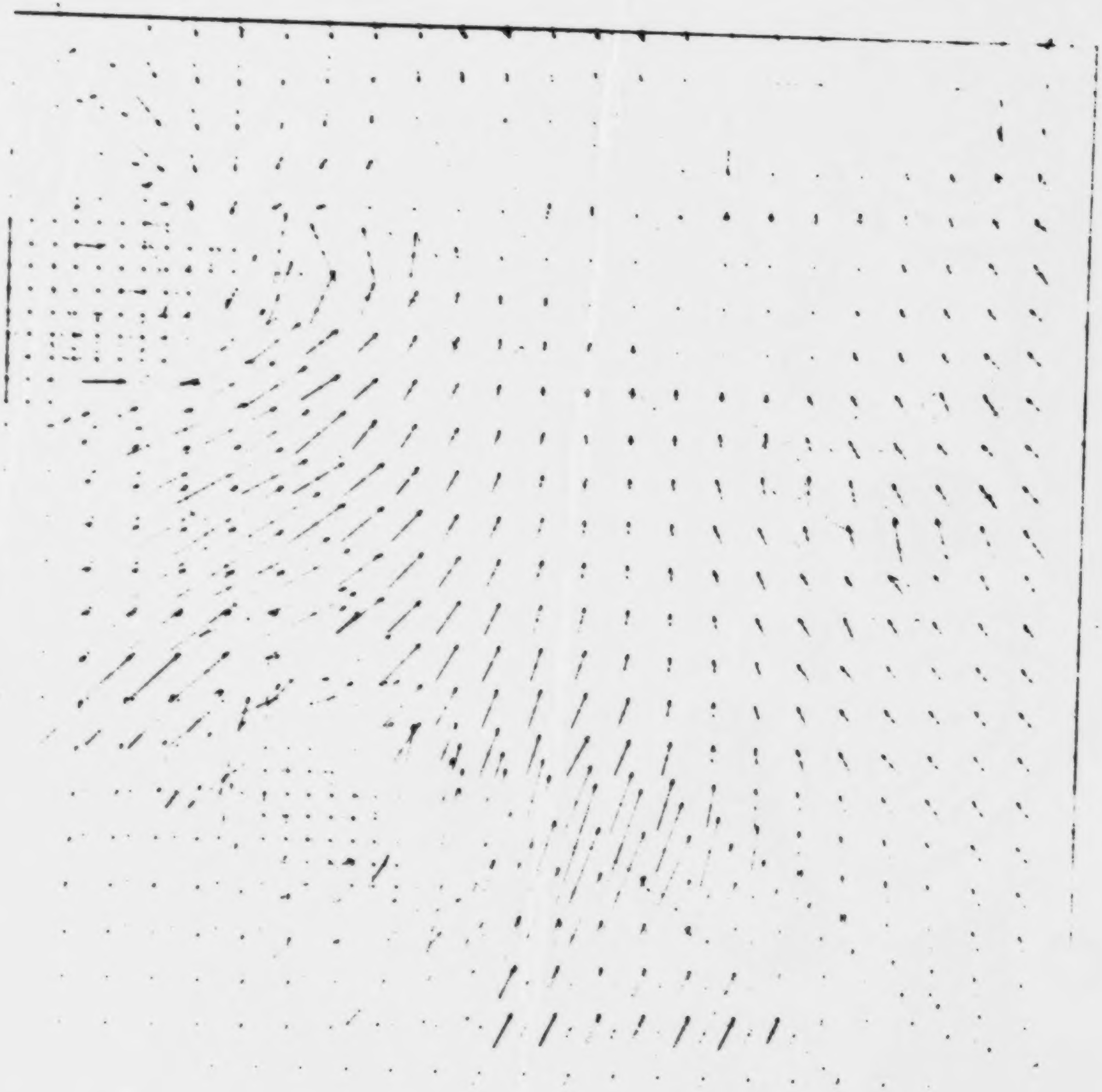

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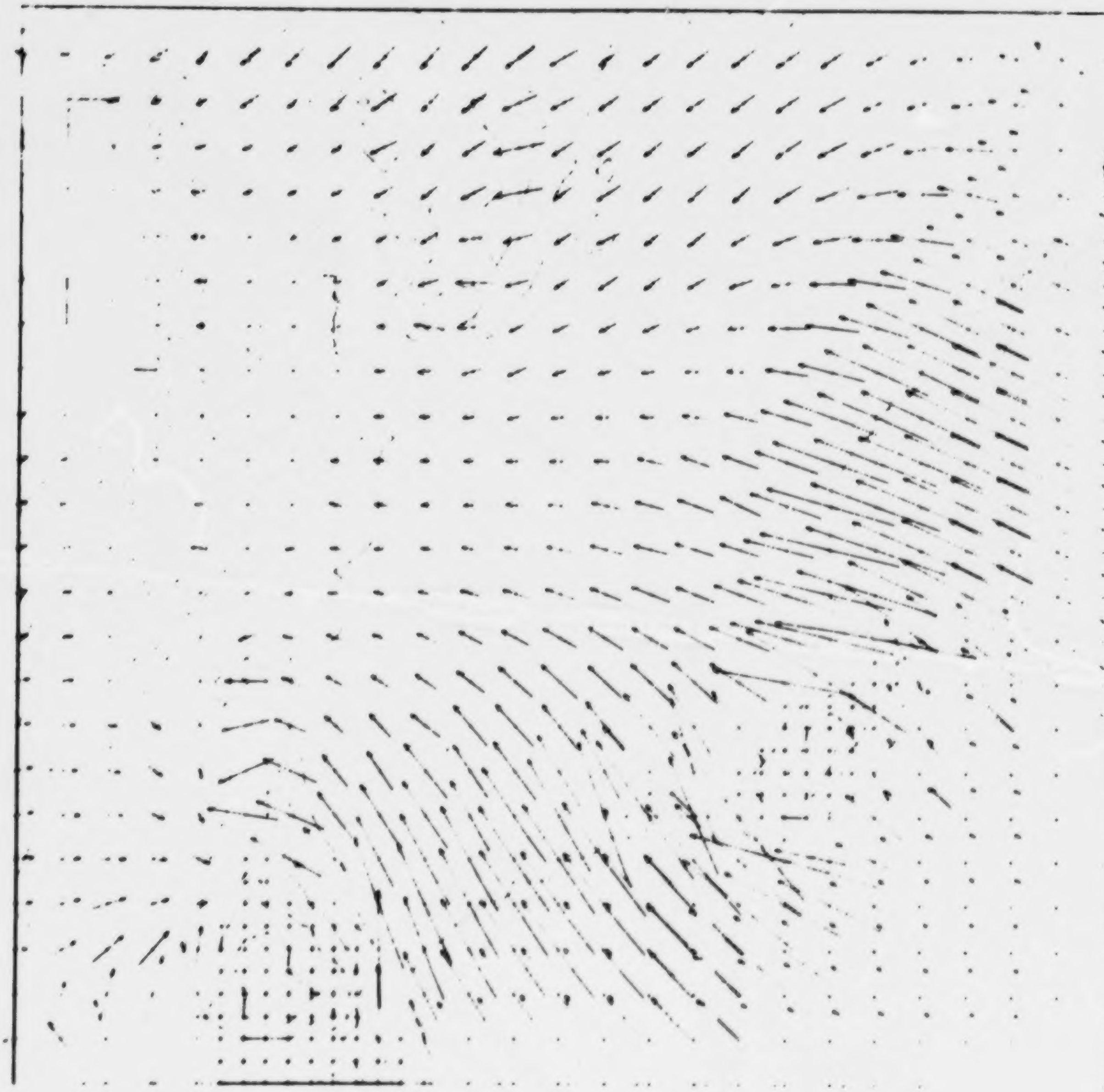

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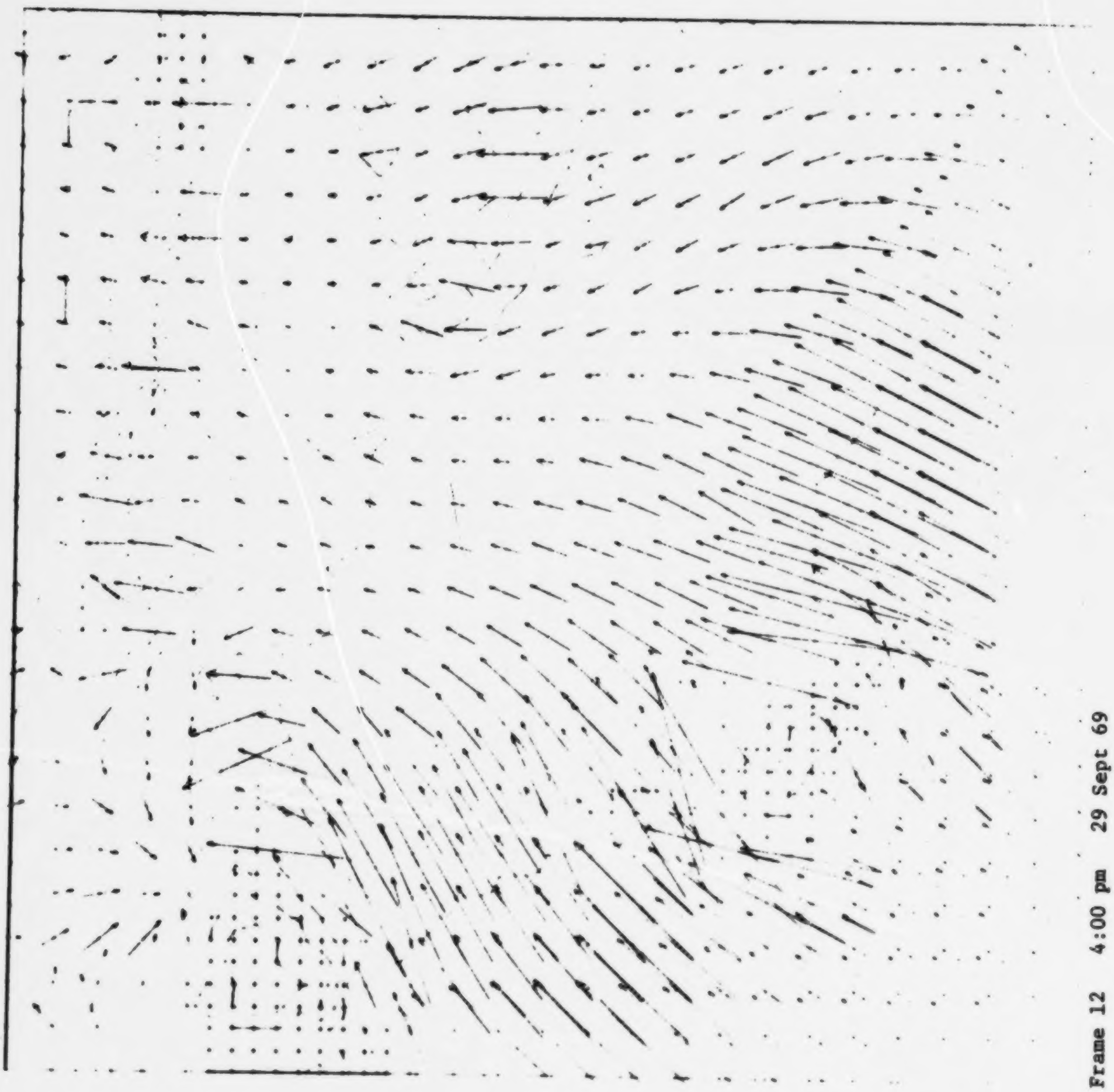

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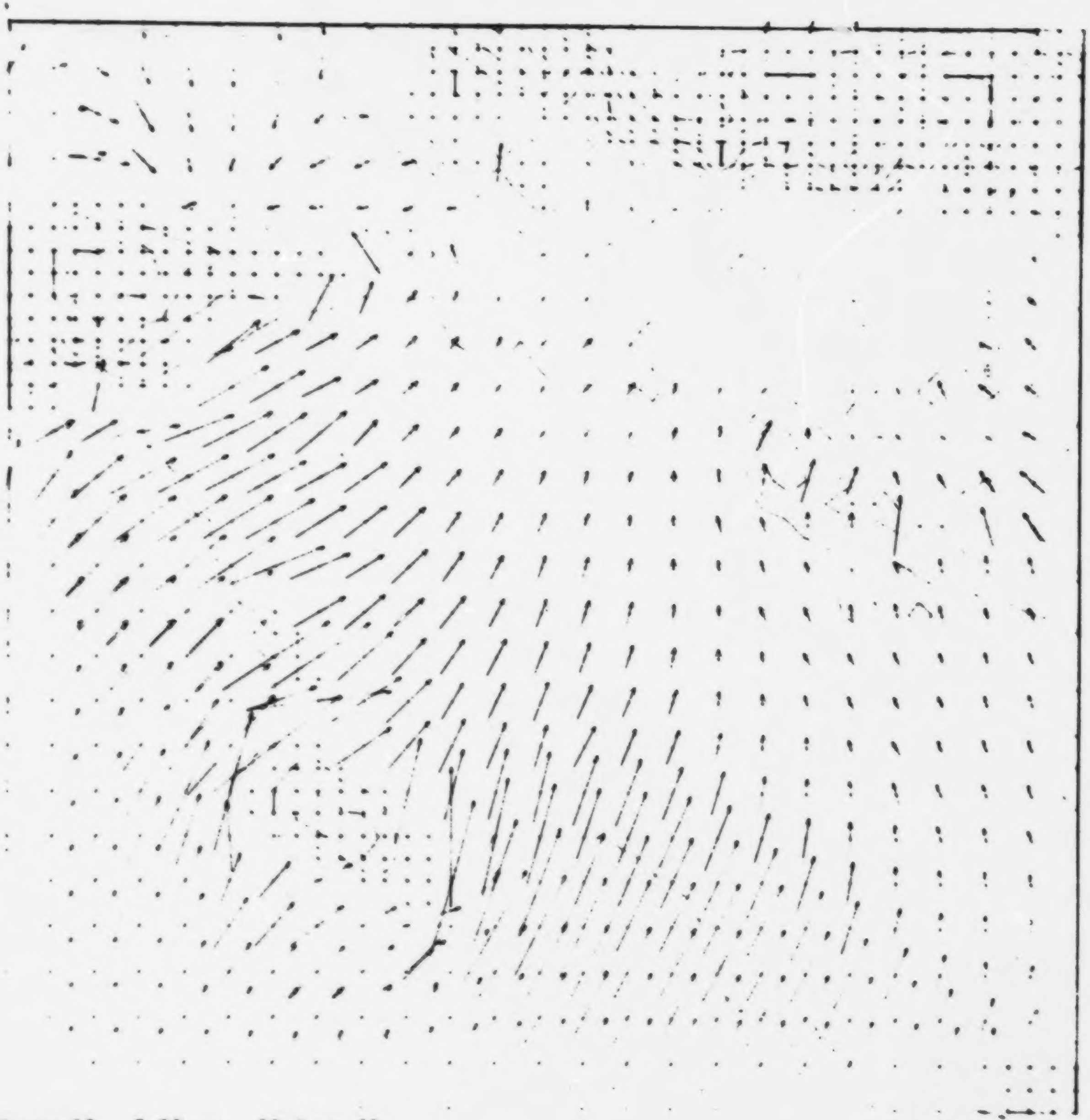

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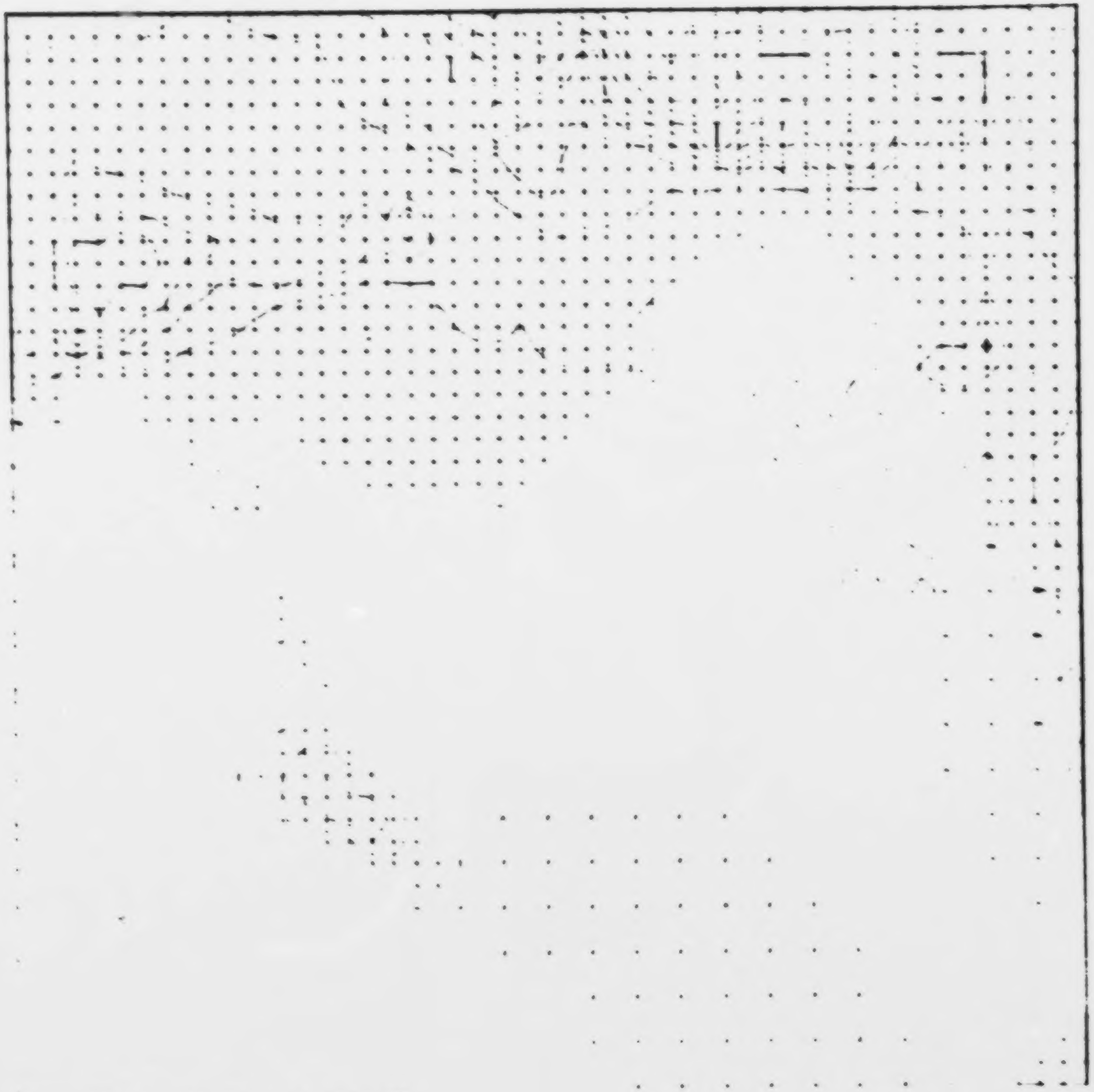

Frame 14 6:00 am 30 Sept 69

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```
           L.A. WINDFIELD ANALYSIS
     1       )
     1       ) W. E. ANDERSON
     1       ) CENTER FOR THE ENVIRONMENT AND MAN
     1       ) 275 WINDSOR ST., HARTFORD, CONNECTICUT 06120
     1       ) TELEPHONE 203 549 4400 X590
     1       )
     1       )
     1       DEFINE GRID AS PHI'T,INVRSN,FT OF 49 Y OF 49 X
     1 =====DEFINE GRID' OF 48 Y FROM 1.5 OF 48 X FROM 1.5
     1 =====DEFINE GRID'' OF 47 Y FROM 2 OF 47 X FROM 2
     1 =====DEFINE C OF 25 Y FROM 1 BY 2 OF 25 X FROM 1 BY 2:DEFINE N OF Y 49 OF 49 X
     1 =====DEFINE E OF 49 Y OF X 49:DEFINE E'' OF 47 Y FROM 2 OF X 49
     1 =====DEFINE W OF 49 Y OF X 1:DEFINE W'' OF 47 Y FROM 2 OF X 1
     1 =====DEFINE S OF Y 1 OF 49 X:DEFINE S'' OF Y 1 OF 47 X FROM 2
     1 =====DEFINE C'' OF 47 Y FROM 2 OF X 25:DEFINE NC' OF Y 48.5 OF X 25
     1 =====DEFINE NWC OF Y 49 OF X 1:DEFINE NWC' OF Y 48.5 OF X 1:DEFINE SEC OF Y 1 OF X 49
     1 =====DEFINE NEC OF Y 49 OF X 49:DEFINE E' OF 2 Y FROM 1 TO 49 OF X 49
     1 =====DEFINE SE OF Y 1 OF 7 X FROM 43:DEFINE NW OF 19 Y TO 49 OF X 1
     1 =====DEFINE WCOAST OF Y 31 OF X 1:DEFINE SCOAST OF Y 1 OF X 43
     1 =====DEFINE ISO OF 15 H FROM 1 BY 500:DEFINE VECTOR OF 625 PLACES FROM 0
     1 =====DEFINE DATA OF  1 SETS:DEFINE SPREAD OF 1  TIMES
     1       ) **************** INPUT ************************************************
     1       READ 63/X:X:READ 62/Y:Y:READ 51,2/H:H OF 49 Y OF 49 Y:READ ,2
    21       READ 1/H':H':READ 2/T':T':READ 3/U:U:READ 4/V:V:READ 5/SEA:SEA
    46       107 == 1:106 == 2:109 == 3:108 == 4:97 == 5:61 ISO == H
    66       FOR DATA SETS      ) ***********************************************************
    71       ,READ 50/T:T:,READ 49/NW:NW:,READ 48/SE:SE:,96 = 106
    69       ) **************** TEMPERATURE DATA ARRANGED ********************************
    69       ,21 51 * .002:,IMPLY 63,62:,50 - 21:,31 NOT 51:,31 * 97:,AT SE:,31 == 48:,AT NW
   113       ,31 == 49:,AT N:,31 == 49:,25 E' == 31:,AT E:,31 == 25:,IMPLY 63,62:,31 == 50
   137       ) **************** TEMPERATURE FIELD FITTED *********************************
   137       ,41 NOT 31:,AT 41:,L' ,31,0,,02,,1000,/X,Y:,L 11,31/X,Y:,11 * NOT 41:,11 * IF 51
   168       ,1 GRID == 0:,AT GRID'':,1 == 1:,FOR SPREAD TIMES:,,11 GRID' == 1:,,1 == 11
   191       ,AT 41:,L' ,31,1,,2,,1000,/X,Y:,31 + 51 * ,002:,41 G == 31
   215       ,NAME 41/T:,SHOW 41/X,Y
   222       ) **************** COMPUTE THERMAL WIND ***************************************
   222       ) ----------------- GENERATE THERMAL FORCING FUNCTION ---------------------------
   222       ,31 - 97:,96 - 97:,96 / 107:,41 31 / 96:,11 41 GT 107:,11 * 1000
   244       ,41 - 51:,41 * NOT 11:,41 + 11:,11 NEG 41:,11 * POS 31
   261       ) ----------------- PLOT 500 FOOT TOPOGRAPHIC CONTOURS ---------------------------
   261       ,FRAME GRID,1,/X,Y:,1 51 == X:,21 51 == Y:,PLOT 1,21,,51,61/X,Y,H
   295       ) ----------------- PLOT CROSS HATCHING ABOVE INVERSION -------------------------
   295       ,AT 11:,PLOT 1,21/X:,AT 11:,PLOT 1,21/Y
   325       ,41 MOST 200.:,41 12:,41 - 11 + 300.:,21 31 * -.001:,21 / 41 / 5280:,11 NOT
   349       ,21 * 11:,OUT 11,GRID/INVRSN:,OUT 21,GRID/FT          :,11 GRID == 0
   365       ) ----------------- GENERATE THERMAL BOUNDARY CONDITIONS -----------------------
   365       ,31 C'' == 21:,33 $Y + 31:,AT NC':,99 MINUS 33                              )W
   380       ,31 W'' == 21:,33 $Y + 31:,31 $Y + 33:,AT W:,11 == Y * 99:,AT W:,11 + 31    )W
   407       ,AT NWC:,99 = 11:,AT N:,11 == 99                                           )N
   427       ,31 S'' == 21:,33 $X + 31:,31 $X + 33:,AT SCOAST:,100 == 31                )S
   437       ,AT WCOAST:,98 == 11:,98 - 100:,98 / 43.:,AT S:,31 + X * 98:,AT S:,11 == 31 )S
   460       ,31 E'' == 21:,33 $Y + 31:,31 $Y + 33:,AT SEC:,98 == 11                    )E
   460       ,AT NEC:,100 == 33:,AT NEC:,101 == 31:,AT E:,31 == Y * 100:,100 * 49.      )E
   500       ,100 - 101:,31 / 100:,99 - 98:,31 * 99:,AT E:,11 == 31 + 98                )E
   519       ) ----------------- INITIAL FIELD, SOLVE EQN, COMPUTE VELOCITY COMPONENTS ------
   519       ,99 + 98:,99 / 49.:,AT GRID'':,11 + Y * 99:,L' ,11,21,,01,1.8,1000,/X,Y
   543       ,OUT 11,GRID/PHI'T:,DEL ,,1,21,11/X,Y
   557       ) **************** COMPUTE TOPOGRAPHIC WIND **********************************
   557       ,1 + 108:,21 + 109:,DEL ,,11,31,41/X,Y:,1 * 11:,IN 11,GRID/FT:,31 * 21
   583       ,21 MINUS 31 + 1:,41 MOST 100.:,21 / 41:,21 + 11:,IN 31,GRID/PHI'T
   601       ,11 GRID' == X:,11 * 109:,AT GRID':,11 + Y * 108:,11 + 31:,IN 31,GRID/INVRSN
   625       ,L' ,11,21,,01,1.8,1000,/X,Y:,11 * .3048 ( CONVERT TO METERS/SEC )
   657       ) **************** OUTPUT ***************************************************
   657       ,DEL ,,1,21,11/X,Y:,41 G == 31:,34 VECTOR == 0:,37 = 34:,31 41 * 11
   665       ,11 REAL VECTOR == PLACES:,11 + .001:,14 11 / 25.:,14 + .5:,17 REAL ROUND 14
   686       ,17 * 2.:,17 - 1.:,11 MODULO 25.:,11 * 2.:,11 + 1.
   700       ,NAME 11/X:,NAME 17/Y:,NAME 31/PHI:,SHOW 31/X,Y
   713       ,31 41 * 1:,NAME 31/V:,SHOW 31/X,Y:,IMPLY 11,17:,34 == 31:,WRITE 31,3/V
   736       ,31 41 * 2:,NAME 31/U:,SHOW 31/X,Y:,IMPLY 11,17:,37 == 31:,WRITE 31,3/U
   759       ,PLOT 11,17,,37,34/PLACES
   772       )
   772       ) END OF PROGRAM, DATA FOLLOWS
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218      = L.A. LINDFIELD ANALYSIS                                        ANALTO PAGE    1  23 MAR 73 10:42:47
   SETS=1
GRIDPRINT OF       T(     X,     Y) IN UNITS 1.0000+02

.640 .640 .640 .640 .640 .640 .640 .640 .640 .540 .640 .640 .640 .640 .640 .640 .658 .681 .679 .696 .681 .683 .688 .695 .710
.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .653 .670 .682 .687 .681 .682 .687 .694 .704
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.640 .640 .640 .640 .640 .640 .658 .658 .644 .642 .643 .641 .640 .644 .649 .656 .654 .658 .672 .687 .678 .683 .687 .694 .702
.640 .640 .640 .640 .640 .642 .666 .650 .641 .641 .641 .641 .643 .648 .651 .656 .658 .662 .668 .685 .677 .682 .695 .700 .710
.640 .640 .640 .640 .640 .645 .642 .642 .640 .640 .641 .642 .648 .651 .653 .658 .663 .666 .671 .693 .680 .686 .707 .707 .712
.640 .640 .640 .640 .640 .640 .639 .639 .640 .639 .641 .644 .647 .651 .657 .663 .670 .674 .675 .677 .678 .704 .711 .715 .744
.640 .640 .640 .640 .640 .640 .640 .639 .639 .640 .643 .643 .646 .651 .658 .667 .680 .679 .678 .680 .688 .699 .701 .732 .752
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.636 .639 .632 .629 .630 .634 .637 .639 .640 .643 .645 .649 .657 .669 .670 .667 .678 .681 .679 .696 .704 .725 .713 .716 .744
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.644 .640 .641 .639 .640 .643 .648 .637 .656 .661 .655 .665 .677 .679 .681 .682 .681 .683 .688 .695 .716 .724 .732 .738 .770
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709      L.A. WINDFIELD ANALYSIS                                              ANAL70 PAGE    2  23 MAR 73 18:43:02
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.031 .062 .094 .126 .158 .190 .222 .253 .284 .316 .347 .378 .410 .441 .473 .509 .000 .000 .000 .000 .000 .000 .000 .000 .000

.062 .087 .111 .136 .160 .185 .210 .236 .263 .289 .316 .343 .369 .395 .420 .441 .000 .000 .000 .000 .000 .000 .000 .000 .000

.094 .111 .128 .145 .162 .180 .199 .219 .241 .263 .285 .307 .326 .349 .370 .390 .000 .000 .000 .000 .000 .000 .000 .000 .000

.126 .136 .146 .155 .164 .173 .185 .200 .218 .236 .254 .271 .287 .304 .321 .340 .000 .000 .000 .000 .000 .000 .000 .000 .000

.158 .161 .163 .164 .164 .164 .167 .179 .195 .211 .224 .236 .246 .258 .282 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.190 .186 .181 .175 .165 .152 .141 .150 .174 .187 .193 .203 .208 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.221 .212 .202 .188 .166 .140 .000 .000 .165 .168 .173 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.252 .240 .225 .206 .183 .142 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.283 .269 .253 .233 .203 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.313 .300 .286 .268 .242 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.342 .332 .321 .311 .307 .330 .347 .349 .347 .323 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

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.401 .395 .389 .384 .381 .378 .373 .366 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.431 .426 .420 .415 .411 .407 .400 .405 .429 .441 .438 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.461 .456 .451 .446 .442 .438 .437 .442 .450 .455 .458 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.491 .486 .481 .476 .471 .467 .465 .466 .469 .474 .481 .493 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.521 .516 .510 .505 .500 .495 .491 .489 .491 .495 .502 .512 .525 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.551 .546 .540 .534 .525 .522 .517 .514 .514 .517 .523 .532 .542 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.581 .576 .570 .564 .557 .550 .545 .540 .539 .540 .545 .553 .563 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.611 .606 .601 .595 .589 .582 .576 .570 .567 .567 .571 .579 .592 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.641 .637 .634 .630 .626 .619 .611 .604 .599 .599 .600 .605 .627 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.671 .669 .673 .671 .665 .653 .652 .641 .635 .637 .638 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.700 .697 .712 .721 .723 .716 .694 .684 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.730 .000 .769 .754 .795 .766 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.760 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
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-7z1 ----- = L.A.. [illegible] ANALYSIS                                  ANALTO PAGE    3  23 MAR 73 18:43:02
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GRIDPRINT OF      V(     X,     Y) IN UNITS 1.0000+00

-.160-.160 .160-.160-.160-.160-.158-.157-.156-.167-.156 .157 .157-.157-.156 .118-.000 .000 .000-.000-.000 .000-.000 .000-.000

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-.086 .087 .085 .084 .086 .091-.097 .105-.112 .111 .110 .107-.107 .106-.101-.103-.000 .000 .000-.000 .000 .000 .000 .000-.000

 .049 .050 .040 .045 .045 .052 .060 .065 .092 .090 .088 .082 .083 .085 .076 .172 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.010 .013-.008-.002-.003-.003-.034-.080-.083-.070-.063-.055-.049-.047-.156-.000 .000-.000 .000-.000 .000 .000 .000 .000-.000

-.010-.020-.028-.041-.058-.069-.014 .174 .081 .045 .028 .043 .070 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

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-.059-.066-.061-.112-.159-.207 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.060-.072-.087-.122-.183 .000 .000 .000 .000 .000 .000 .000 .000 .000-.000 .000 .000 .000-.000 .000 .000 .000 .000 .000 .000

-.062-.067-.076-.098-.182 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

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-.035-.032-.029-.020-.011-.015-.044-.115 .000-.000-.000-.000-.000-.000-.000-.000-.000 .000 .000-.000 .000-.000 .000 .000 .000

-.027-.026-.027-.021-.017-.023-.053-.054 .063 .048 .014 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.027-.026-.026-.023-.019-.015 .008-.023 .029 .023-.011 .000 .000 .000-.000-.000-.000-.000 .000-.000 .000-.000 .000 .000-.000

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-.021-.016-.017-.021-.027-.037-.042-.034-.010 .006-.001 .168 .168 .000-.000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.030 .002 .007-.003-.018-.047-.039-.046-.003 .014 .073 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.251 .081 .058 .031-.006-.009-.144 .001 .000 .000 .003 .000 .000 .000-.000-.000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .000 .000 .067 .077 .018-.042 .000 .000 .000 .000 .003 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.000 .000 .006 .103 .000 .000 .000 .000 .000-.000 .000 .000 .000 .000 .000 .000 .000 .000-.000-.000 .000-.000-.000 .000 .000
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744            L.A. WINDFIELD ANALYSIS                                        ANAL70 PAGE     6  23 MAR 73 10:43:03
  SETS=1
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 .161 .121 .089 .049 .013-.023-.035-.080-.105-.131-.154-.179-.206-.236-.283-.521 .000 .000 .000 .000 .000 .000 .000 .000 .000

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 .160 .124 .086 .048 .009-.029-.061-.089-.111-.132-.155-.179-.203-.226-.247-.263 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .161 .123 .085 .046 .004-.039-.075-.099-.114-.132-.154-.178-.205-.225-.241-.175 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .160 .124 .089 .048 .002-.053-.104-.121-.115-.126-.146-.174-.215-.247-.076 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

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 .157 .134 .109 .076 .033-.024 .000 .000-.002-.065-.020 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .153 .142 .128 .110 .084 .104 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .150 .150 .151 .154 .157 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .147 .157 .172 .205 .301 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .147 .159 .177 .209 .251 .106 .067-.002-.063-.100 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .147 .159 .169 .179 .173 .143 .068 .022-.009 .079 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .149 .155 .161 .162 .154 .134 .103 .081 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .149 .153 .155 .156 .153 .157 .239 .343 .189 .047 .106 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .150 .150 .152 .152 .156 .150 .130 .124 .091 .068 .116 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .150 .149 .149 .147 .143 .140 .131 .117 .103 .101 .108 .109 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

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 .148 .157 .175 .187 .198 .199 .191 .190 .174 .173 .153 .114 .282 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .147 .158 .192 .222 .240 .258 .213 .190 .177 .211 .208 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .113 .197 .232 .281 .397 .297 .208 .249 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .000 .000 .352 .349 .415 .405 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .000 .000 .000 .372 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 71      T OF 9 [illegible] 6. 65 67 OF 68 61 61 69                              ) 6 AM
 70      [illegible]                                                              ) 6 AM
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218      = L.A. WINDFIELD-ANALYSIS                         ANALTO PAGE    5  23 MAR 73 18:43:29
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.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .646 .685 .702 .696 .686 .684 .686 .693 .704

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .651 .670 .693 .699 .683 .683 .685 .693 .702

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .644 .652 .663 .680 .691 .680 .683 .686 .693 .699

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .643 .642 .643 .647 .652 .662 .672 .685 .678 .683 .686 .693 .700

.640 .640 .640 .640 .640 .640 .648 .650 .640 .640 .640 .643 .643 .645 .645 .648 .655 .659 .677 .685 .678 .683 .686 .693 .702

.640 .640 .640 .640 .640 .640 .659 .659 .645 .643 .644 .642 .640 .645 .650 .657 .655 .658 .672 .697 .678 .683 .687 .694 .702

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.640 .640 .640 .640 .640 .646 .644 .645 .645 .645 .645 .646 .651 .654 .656 .660 .664 .667 .672 .694 .680 .686 .707 .707 .712

.640 .640 .640 .640 .640 .640 .642 .645 .647 .647 .648 .650 .651 .655 .660 .666 .671 .675 .677 .678 .679 .705 .712 .716 .744

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.640 .640 .640 .635 .633 .630 .628 .627 .625 .625 .625 .625 .628 .642 .659 .662 .665 .672 .675 .678 .690 .728 .745 .736 .772

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.640 .635 .631 .626 .624 .624 .624 .620 .616 .621 .624 .628 .630 .652 .653 .656 .666 .669 .674 .679 .692 .717 .737 .726 .756

.640 .631 .624 .618 .619 .622 .624 .624 .623 .627 .630 .636 .643 .663 .656 .662 .677 .671 .677 .681 .705 .715 .733 .716 .740

.635 .632 .620 .619 .617 .624 .629 .631 .632 .636 .638 .643 .652 .664 .667 .665 .677 .681 .680 .696 .704 .725 .713 .717 .744

.637 .630 .626 .619 .623 .628 .633 .637 .640 .644 .644 .651 .662 .667 .670 .668 .672 .680 .681 .696 .709 .723 .730 .721 .752

.634 .636 .632 .630 .632 .635 .641 .649 .649 .654 .652 .659 .672 .674 .677 .678 .678 .680 .685 .692 .714 .722 .731 .737 .770
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709        = L.A. AIRFIELD ANALYSIS                                      ANAL70 PAGE   6  23 MAR 73 18:43:45
   SETS=2
GRIDPRINT OF    PHI(    X,     Y) IN UNITS 1.0000+02

 .004 .010 .015 .021 .026 .032 .038 .043 .049 .054 .060 .065 .071 .076 .082 .088 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .009 .013 .018 .022 .027 .031 .036 .041 .045 .050 .055 .060 .064 .069 .073 .077 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .014 .017 .020 .024 .027 .030 .034 .039 .042 .046 .050 .054 .058 .062 .066 .069 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .017 .021 .023 .025 .027 .029 .032 .035 .039 .042 .046 .049 .053 .056 .059 .062 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .024 .023 .025 .026 .027 .027 .029 .032 .035 .039 .041 .044 .047 .050 .054 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .029 .028 .028 .028 .027 .025 .024 .028 .033 .035 .037 .039 .042 .060 .058 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .033 .032 .031 .029 .027 .023 .000 .000 .031 .033 .034 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .038 .037 .035 .032 .028 .023 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .043 .041 .039 .036 .031 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .048 .046 .044 .041 .037 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .052 .051 .049 .047 .046 .049 .054 .000 .000 .058 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .057 .055 .054 .053 .053 .053 .055 .056 .058 .056 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .061 .060 .059 .058 .058 .057 .055 .055 .057 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .066 .065 .064 .063 .062 .061 .059 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .071 .070 .069 .068 .066 .067 .066 .066 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .075 .075 .074 .073 .073 .073 .073 .076 .080 .083 .085 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .080 .079 .079 .078 .078 .078 .079 .080 .083 .085 .087 .089 .092 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .084 .084 .083 .083 .083 .083 .083 .084 .086 .087 .089 .090 .091 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .089 .089 .088 .088 .088 .088 .088 .088 .089 .090 .091 .092 .093 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .094 .093 .093 .093 .093 .093 .093 .093 .094 .094 .095 .095 .096 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .098 .098 .098 .098 .098 .099 .099 .099 .099 .099 .099 .099 .100 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .103 .103 .103 .104 .105 .106 .106 .106 .106 .105 .105 .104 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .107 .109 .110 .111 .113 .114 .114 .114 .113 .113 .112 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .116 .115 .117 [illegible] [illegible] .125 .126 [illegible] .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .118 .121 .125 .129 .133 .137 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 721          = L.A. AIRFIELD ANALYSIS                                          ANAL70 PAGE    7  23 MAR 73 18:43:46
 SEISE2
GRIDPOINT OF     (X,    Y) IN UNITS 1.0000+00
 .280 .232 .280 .280 .27[illegible] .274 .277 .274 .274 .274 .275 .274 .275 .277 .279 .228 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .234 .225 .223 .222 .224 .226 .233 .236 .241 .240 .240 .238 .235 .227 .203 .098 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .160 .160 .164 .162 .166 .176 .190 .203 .210 .209 .204 .203 .198 .187 .165 .149 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .104 .105 .103 .099 .103 .1[illegible] .1[illegible]7 .179 .186 .179 .171 .167 .166 .161 .126 .264 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .050 .047 .041 .033 .020 .041 .099 .164 .174 .143 .132 .123 .133 .118 .165 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.002-.000-.018-.027-.061-.079-.032 .334 .162 .113 .073 .041 .165 .000 .250 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.049-.052-.070-.104-.151-.215 .000 .000 .011 .091 .149 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.077-.085-.109-.155-.223-.20[illegible] .039 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.095-.100-.120-.179-.273 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.091-.098-.115-.154-.280 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.073-.080-.085-.076 .013 .136 .035 .000 .000-.103 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.060-.000-.061-.043 .005 .001 .032 .120 .[illegible]7 .007 .003 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.053-.054-.049-.043-.036-.005-.131-.130 .089 .000 .003 .003 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.049-.045-.048-.103-.154-.097-.240 .000 .000 .000 .003 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.037-.038-.032-.037-.042-.032-.000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.034-.031-.030-.020-.020-.032 .067 .151 .260 .129 .010 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.026-.026-.024-.020-.016 .011 .005 .102 .123 .107 .100 .105 .053 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.025-.021-.022-.016-.009 .009 .036 .061 .077 .078 .077 .073 .032 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.018-.019-.019-.015-.007 .006 .020 .034 .044 .051 .050 .041 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.014-.015-.013-.007 .001 .006 .011 .015 .024 .029 .030 .025 .027 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
-.008-.003-.002 .006 .015 .015 .003-.000 .005 .000 .000 .006 .036 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .017 .017 .020 .030 .043 .029 .006-.012-.077-.019-.039-.044 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .067 .059 .050 .075 .081 .047-.009-.034-.010-.017-.002 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .137 .122 .117 .120 .131 .089-.121 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .201 .191 .190 .196 .190 .200 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 7?4        = L.A. AIRFIELD ANALYSIS                                        ANAL70 PAGE    8  23 MAR 73 10:43:46
    SETS=2
GRIDPOINT OF       UI      V,      YI IN UNITS 1.0000+00

 .237 .175 .125 .070 .014-.037-.0[illegible]-.127-.162-.194-.229-.265-.306-.354-.448-.892 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .249 .103 .120 .067 .011-.043-.0[illegible]-.120-.163-.196-.229-.264-.302-.345-.396-.205 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .247 .100 .127 .060 .009-.051-.100-.137-.166-.195-.227-.262-.297-.331-.364-.370 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .240 .103 .127 .065-.081-.109-.123-.152-.166-.191-.225-.260-.293-.316-.337-.295 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .247 .190 .133 .007-.084-.1[illegible]-.176-.179-.163-.105-.217-.261-.310-.325-.000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .240 .197 .142 .070-.132-.121-.311-.223-.180-.149-.207-.202-.000 .090 .166 .000 .093 .000 .000 .000 .000 .000 .000 .000 .000

 .244 .204 .162 .107 .130-.031 .040 .003-.020-.115 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .234 .215 .188 .155 .137 .124 .0[illegible] .0[illegible] .083 .0[illegible] .032 .503 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .234 .220 .229 .213 .21[illegible] .208 .0[illegible] .0[illegible] .086 .057 .08[illegible] .006 .00[illegible] .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .23[illegible] .241 .257 .32[illegible] .43[illegible] .5[illegible] .302 .3[illegible] .203 .0[illegible] .033 .000 .000 .300 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .22[illegible] .240 .260 .2[illegible] .307 .218 .1[illegible] .0[illegible] .200-.216 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .224 .243 .259 .273 .25[illegible] .1[illegible] .022-.024-.096 .015 .033 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .228 .240 .250 .253 .23[illegible] .172-.022-.00[illegible] .020 .0[illegible] .033 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .23[illegible] .237 .245 .2[illegible] .251 .2[illegible] .271 .0[illegible] .060 .057 .030 .000 .000 .000 .002 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .23[illegible] .236 .244 .25[illegible] .267 .2[illegible] .4[illegible] .3[illegible] .0[illegible] .0[illegible] .00[illegible] .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .23[illegible] .235 .241 .243 .262 .283 .325 .264 .122 .059 .106 .000 .000 .000 .000 .000 .000 .000 .0[illegible] .000 .000 .000 .000 .000 .000

 .227 .235 .239 .244 .246 .242 .242 .205 .143 .1[illegible] .096 .054-.066 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .23[illegible] .234 .237 .238 .234 .237 .247 .2[illegible] .165 .131 .103 .066 .012 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .23[illegible] .233 .230 .240 .244 .245 .257 .2[illegible] .194 .175 .140 .124 .110 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .23[illegible] .230 .242 .251 .263 .271 .269 .250 .239 .221 .201 .165 .194 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .227 .242 .259 .2[illegible] .290 .315 .321 .310 .302 .261 .254 .223 .170 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .223 .262 .291 .321 .35[illegible] .30[illegible] .3[illegible] .370 .361 .347 .293 .268 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .237 .293 .344 .390 .435 .40[illegible] .4[illegible] .433 .436 .420 .571 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .252 .321 .391 .457 .517 .5[illegible] .5[illegible] .5[illegible] .000 .0[illegible] .003 .003 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .263 .347 .423 .[illegible] .57[illegible] .74[illegible] .9[illegible] .500 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 71       T OF 9 [illegible] 65 70 [illegible] 67 71 [illegible] 66 66                                 ) 7 AM
 76       [illegible] OF 2 X FROM 31 TO 49[illegible] 71[illegible] OF 2 X FROM 43 TO 60[illegible] 65            ) 7 AM
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2.8        - L.A. AIRFIELD ANALYSIS                                          ANALTO PAGE     9  23 MAR 73 10:44:13
    SETS=3
GRIDPRINT OF        I(      X,      Y) IN UNITS 1.000+07
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 .640 .640 .640 .640 .640 .640 .643 .640 .640 .640 .640 .640 .640 .640 .640 .640 .642 .680 .689 .699 .698 .703 .711 .721 .740

 .640 .640 .640 .640 .640 .640 .640 .640 .640 .643 .640 .640 .640 .640 .640 .640 .657 .677 .693 .701 .699 .702 .711 .720 .734
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 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .649 .693 .713 .711 .704 .705 .710 .720 .734

 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .656 .679 .705 .715 .702 .705 .710 .721 .732
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 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .646 .646 .640 .640 .648 .659 .674 .695 .708 .700 .706 .711 .720 .729

 .640 .640 .643 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .645 .647 .654 .662 .675 .688 .704 .700 .707 .712 .721 .730
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 .640 .640 .642 .640 .640 .640 .645 .651 .640 .640 .640 .645 .640 .651 .653 .658 .668 .675 .695 .706 .701 .708 .713 .722 .732

 .640 .640 .640 .640 .642 .640 .660 .661 .647 .646 .646 .649 .650 .655 .662 .670 .669 .676 .692 .710 .703 .710 .715 .723 .732
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 .640 .646 .640 .640 .640 .642 .657 .654 .647 .649 .650 .652 .655 .662 .667 .672 .676 .682 .690 .716 .704 .710 .723 .729 .740

 .640 .640 .640 .640 .643 .646 .646 .640 .650 .652 .654 .657 .664 .668 .672 .677 .683 .690 .695 .720 .710 .715 .736 .737 .742
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 .640 .640 .640 .643 .640 .640 .643 .649 .653 .656 .658 .663 .666 .671 .678 .685 .691 .697 .701 .705 .708 .734 .741 .745 .774

 .640 .640 .640 .640 .640 .640 .642 .651 .659 .661 .664 .665 .669 .675 .683 .691 .700 .704 .706 .709 .718 .730 .732 .762 .782
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 .640 .640 .640 .640 .640 .640 .640 .653 .670 .665 .665 .667 .672 .679 .687 .695 .703 .707 .709 .715 .729 .736 .736 .770 .762

 .640 .640 .640 .640 .640 .640 .640 .652 .661 .664 .665 .666 .673 .680 .689 .700 .704 .709 .712 .716 .722 .728 .739 .742 .786
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 .640 .640 .640 .640 .640 .640 .642 .651 .656 .661 .664 .668 .673 .680 .688 .695 .703 .706 .709 .715 .721 .729 .763 .786 .802

 .640 .640 .640 .640 .643 .640 .645 .650 .654 .658 .662 .666 .672 .679 .686 .693 .702 .704 .707 .713 .719 .740 .783 .798 .806
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 .640 .640 .640 .640 .640 .648 .646 .650 .654 .657 .661 .665 .670 .677 .684 .692 .698 .704 .707 .711 .719 .772 .788 .779 .802

 .640 .640 .640 .641 .644 .645 .648 .651 .654 .657 .660 .663 .670 .677 .694 .707 .708 .710 .707 .710 .719 .747 .772 .767 .802
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 .640 .640 .640 .643 .646 .647 .650 .653 .655 .658 .659 .663 .668 .680 .695 .696 .677 .703 .706 .709 .720 .759 .776 .767 .802

 .640 .640 .643 .645 .646 .650 .652 .655 .657 .659 .661 .670 .660 .681 .691 .690 .695 .701 .705 .709 .726 .777 .770 .758 .794

 .640 .643 .647 .650 .651 .653 .655 .658 .660 .652 .664 .669 .672 .691 .689 .690 .699 .700 .705 .710 .723 .748 .767 .756 .786

 .640 .645 .650 .653 .655 .656 .658 .661 .663 .666 .669 .674 .6[illegible] .699 .691 .695 .710 .702 .708 .712 .736 .745 .763 .746 .770
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 .640 .654 .655 .660 .658 .659 .662 .665 .668 .671 .673 .678 .686 .698 .699 .697 .709 .712 .710 .717 .735 .755 .744 .747 .774

 .657 .664 .660 .658 .660 .662 [illegible] .669 .672 .676 .676 .683 .694 .699 .702 .700 .702 .711 .711 .716 .739 .753 .760 .751 .782
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 .664 .660 .662 .660 .662 .665 .671 .674 .679 .684 .682 .689 .702 .704 .707 .708 .708 .710 .715 .722 .744 .752 .761 .767 .800
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769     - L.A. WINDFIELD ANALYSIS                                          ANAL70 PAGE   10  23 MAR 73 18:44:33
   SETS=3
GRIDPOINT OF    PHI(    X,     Y) IN UNITS 1.000D+02

.011 .036 .060 .083 .107 .130 .154 .177 .200 .223 .246 .270 .293 .317 .341 .369 .000 .000 .000 .000 .000 .000 .000 .000 .000

.020 .050 .070 .091 .111 .132 .153 .175 .196 .218 .239 .260 .280 .300 .317 .328 .000 .000 .000 .000 .000 .000 .000 .000 .000

.040 .064 .081 .098 .116 .134 .153 .172 .193 .213 .233 .251 .269 .285 .297 .306 .000 .000 .000 .000 .000 .000 .000 .000 .000

.064 .078 .092 .106 .120 .134 .151 .173 .190 .209 .227 .243 .259 .273 .281 .296 .000 .000 .000 .000 .000 .000 .000 .000 .000

.082 .093 .103 .113 .123 .133 .146 .166 .187 .206 .222 .236 .249 .266 .277 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.100 .106 .115 .121 .125 .128 .134 .160 .188 .206 .219 .231 .240 .000 .300 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.110 .123 .127 .130 .120 .122 .000 .000 .197 .210 .223 .000 .000 .000 .326 .340 .000 .000 .000 .000 .000 .000 .000 .000 .000

.130 .139 .142 .142 .130 .130 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .384 .396 .000 .000 .000 .000 .000 .000 .000

.153 .150 .158 .158 .155 .000 .000 .000 .000 .000 .000 .335 .336 .300 .000 .000 .389 .000 .000 .000 .000 .000 .000 .000 .000

.170 .174 .177 .179 .176 .000 .000 .000 .000 .340 .346 .341 .000 .000 .413 .405 .000 .000 .000 .000 .000 .000 .000 .000 .000

.187 .192 .198 .209 .215 .244 .254 .307 .332 .341 .349 .000 .388 .407 .409 .403 .000 .000 .000 .000 .000 .000 .000 .000 .000

.204 .210 .217 .227 .241 .262 .287 .309 .336 .345 .000 .378 .391 .401 .405 .401 .401 .000 .000 .000 .000 .000 .000 .000 .000

.221 .227 .235 .245 .257 .273 .291 .309 .335 .352 .368 .381 .392 .400 .405 .405 .000 .000 .000 .000 .000 .000 .000 .000 .000

.230 .244 .251 .259 .271 .283 .295 .322 .348 .358 .370 .382 .393 .402 .408 .410 .000 .000 .000 .000 .000 .000 .000 .000 .000

.250 .260 .264 .272 .282 .293 .311 .335 .349 .360 .372 .383 .393 .403 .411 .419 .000 .000 .000 .000 .000 .000 .000 .000 .000

.274 .274 .275 .281 .292 .303 .000 .339 .350 .361 .372 .382 .393 .403 .414 .425 .000 .000 .000 .000 .000 .000 .000 .000 .000

.292 .268 .280 .285 .305 .324 .333 .341 .350 .361 .371 .380 .391 .401 .000 .000 .470 .402 .000 .000 .000 .000 .000 .000 .000

.316 .303 .294 .000 .300 .338 .336 .350 .348 .363 .369 .376 .000 .000 .000 .000 .000 .401 .503 .000 .000 .000 .000 .000 .000

.327 .322 .322 .000 .300 .336 .335 .000 .300 .000 .373 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.347 .333 .343 .302 .300 .356 .3.1 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.359 .000 .000 .000 .302 .307 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.373 .302 .000 .413 .402 .307 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.000 .000 .000 .420 .422 .415 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.000 .000 .000 .444 .444 .444 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.000 .000 .000 [illegible] .461 .475 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
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Reproduced from best available copy.

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.321       L.A. AIRFIELD ANALYSIS                                   ANAL70 PAGE    11  23 MAR 73 18:44:34
   SETS=3
GRADIENT OF      V(     X,      Y) IN UNITS 1.0000+01

-.141 -.120 -.118 -.118 -.117 .1.7 -.116 .116 -.115 -.116 -.116 .117 .118 -.120 -.122 -.104 .000 .000 .000 .000 -.000 -.000 -.000 .000 .000

 .114 .105 .103 .102 .103 .105 .106 .108 .108 .107 .106 .103 .100 .093 .078 .026 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.089 -.088 .086 .086 .088 .092 .097 -.101 -.102 .099 -.095 .091 .084 -.072 .052 .039 .000 .000 .000 .000 -.000 .000 .000 .000 .000

 .071 .070 .069 .068 .070 .077 .089 .099 .099 .093 .086 .080 .075 .062 .021 .068 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.053 -.053 .051 .048 -.046 .056 -.091 .111 -.102 .087 -.075 .067 .067 -.088 -.002 .000 .000 .000 .000 -.000 -.000 .000 -.000 .000 .000

 .034 .037 .033 .026 .019 .017 .004 .192 .163 .077 .056 .055 .071 .000 .008 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.026 .024 .016 .006-.015-.058 .000 .000 -.051 .074 -.639 .000 .000 -.000 -.003 .153 -.000 .000 .000 -.000 .000 .000 -.000 -.000 -.000

 .019 .016 .008-.007-.032-.044 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .072 .069 .000 .000 .000 .000 .000 .000 .000

-.016 .015 .007-.011-.043 .000 .000 .000 .000 .000 .000-.015-.003 .000 .000 .000-.032 .000 .000 .000 .000 -.000 -.000 .000 .000

 .021 .020 .015 .003-.046 .030 .000 .000 .000 .040-.016-.044 .000 .000 .006-.055 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.027 -.020 -.030 .056 -.079 -.150 -.130 -.107 -.055 -.028 -.102 -.000 .104 -.074-.018-.038-.000 .000 .000 .000 .000 .000 -.000 -.000 -.000

 .031 .034 .040 .055 .066 .122 .1.3 .112 .090 .058 .003 .063 .060 .040 .001-.040 .036 .000 .000 .000 .000 .000 .000 .000 .000

-.032 .035 .042 .055 -.072 .064 .040 -.079 -.096 .074 -.087 -.057 .056 -.035 -.012-.010 -.000 .000 -.000 -.000 .000 -.000 -.000 .000 .000

 .028 .030 .038 .050 .061 .066 .037 .057 .029 .059 .063 .057 .049 .038 .022 .005 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.010 .020 .029 .045 .054 -.061 -.110 -.060 -.058 .056 -.057 -.055 .050 .044 -.033-.002 .000 -.000 -.000 .000 .000 -.000 -.000 -.000 -.000

-.001 .001 .013 .047 .056 .043 .033 .053 .056 .055 .053 .053 .052 .050 .063 .046 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.010-.025-.051 .080 .070 -.035 .047 -.039 .052 .054-.047-.048 -.059 .040 -.000 .000 -.108 -.037 .000 .000 .000 -.000 .000 .000 -.000

-.027-.033-.060 .030 .008-.015-.005 .033 .060 .063 .029 .061 .000 .000 .000 .000 .000 .057 .051 .000 .000 .000 .000 .000 .000

-.041-.017 .023 .030 .006-.075-.076 .000 .000 .000 .016 .000 .000 .000 .000 .000-.000 .000 .000 .000 .000 .000 .000 .000 .000

-.153-.016 .083 .001-.018-.032-.035 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.010 .000 .000 .000-.052-.100 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .030 .041 .000-.049-.054-.007 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.000 -.000 .000-.005-.024-.032 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 -.000 -.000 .000 .000

 .000 .000 .000-.014 .006-.015 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.000 .000 .000 .000 .054 .037 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 -.000 .000 .000
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-744      = L.A. WINDFIELD ANALYSIS                                      ANAL70 PAGE   12  ?? MAR 73 18:44:35
  SETS=3
GRIDPRINT OF      U(     X,      Y) IN UNITS 1.0000+01

 .083 .064 .052 .037 .023 .010-.001-.010-.018-.026-.036-.048-.065-.090-.139-.340 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .080 .069 .053 .039 .023 .009-.002-.011-.018-.025-.035-.046-.062-.082-.112-.124 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .090 .072 .054 .037 .021 .006-.005-.012-.017-.023-.032-.042-.055-.069-.090-.106 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .090 .073 .055 .036 .017-.001-.014-.010-.015-.018-.026-.037-.046-.049-.066-.059 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .090 .074 .056 .036 .013-.014-.034-.025-.007-.008-.016-.032-.049-.018 .069 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .090 .075 .060 .040 .012-.030-.096-.031 .021 .010-.010-.015 .004 .000 .171 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .089 .070 .067 .052 .024-.029 .000 .000 .057 .033 .095 .000 .000 .000 .073 .153 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .087 .082 .077 .070 .062 .064 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .011-.042 .000 .000 .000 .000 .000 .000 .000
 .086 .087 .090 .093 .094 .000 .000 .000 .000 .000 .000 .095 .034 .000 .000 .000 .027 .000 .000 .000 .000 .000 .000 .000 .000
 .084 .091 .101 .121 .174 .000 .000 .000 .000 .071 .002 .064 .000 .000 .024-.007 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .084 .091 .102 .123 .162 .118 .055 .010-.033-.009 .025 .000 .024-.053-.031-.001 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .085 .089 .094 .100 .098 .066 .016 .008 .012 .040 .000 .030 .007-.010-.009-.022 .007 .000 .000 .000 .000 .000 .000 .000 .000
 .080 .065 .083 .081 .072 .061 .016-.011 .045 .033 .012 .006 .005 .003 .009 .028 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .083 .060 .073 .067 .061 .053 .060 .141 .042 .022 .011 .005 .004 .007 .013 .021 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .089 .075 .062 .055 .052 .042 .059-.001 .000 .006 .004 .001 .001 .005 .017 .038 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .092 .069 .044 .038 .056 .141 .000 .029 .005 .001-.002-.006-.007-.004 .013 .073 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .092 .069 .003-.003 .126 .144 .018-.002-.004-.003-.007-.016-.017-.013 .000 .000 .038 .060 .000 .000 .000 .000 .000 .000 .000
 .083 .069 .115 .000 .000 .071 .008-.023-.019 .001-.005-.022 .006 .000 .000 .000 .000 .030 .038 .000 .000 .000 .000 .000 .000
 .081 .087 .163 .000 .000 .043-.011 .000 .000 .000 .065 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .080 .021 .036 .009 .030 .035 .048 .063 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .074 .000 .000 .000 .105 .059 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .061-.003 .000 .051 .097 .130 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .000 .000 .000 .075 .104 .104 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .000 .000 .000 .072 .106 .123 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 .000 .000 .000 .000 .103 .250 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 71       T OF [illegible]:77 69 75 75 71 75 71 70 68                                  ) 8 AM
 -10-     [illegible] FROM 31-[illegible]-49:64 [illegible] OF 2-X FROM 43-TO-49:64 66   ) 8 AM
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-218    - L.A. WINDFIELD ANALYSIS                                    ANAL70 PAGE  13  23 MAR 73 10:45:04
  SEIS=4
GRIDPOINT OF       T(     X,     Y) IN UNITS 1.000D+02

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .664 .692 .696 .708 .709 .716 .727 .739 .760

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .659 .682 .701 .711 .711 .716 .727 .739 .754

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .651 .700 .722 .722 .717 .720 .726 .738 .754

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .661 .688 .716 .728 .716 .721 .727 .739 .752

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .654 .668 .686 .708 .723 .716 .723 .729 .739 .749

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .651 .657 .666 .676 .690 .704 .721 .717 .725 .731 .740 .750

.640 .640 .640 .640 .640 .640 .649 .652 .640 .640 .640 .654 .665 .670 .672 .677 .687 .694 .715 .725 .720 .727 .732 .742 .752

.640 .640 .640 .640 .640 .640 .642 .645 .653 .655 .662 .671 .690 .685 .689 .695 .694 .699 .715 .731 .723 .730 .735 .743 .752

.640 .640 .640 .640 .640 .643 .673 .662 .659 .665 .672 .681 .690 .697 .699 .703 .706 .710 .717 .733 .725 .731 .744 .750 .760

.640 .640 .640 .640 .640 .648 .651 .659 .666 .673 .680 .688 .699 .705 .708 .714 .719 .722 .726 .746 .730 .737 .758 .758 .762

.640 .640 .640 .640 .640 .640 .649 .662 .675 .682 .680 .696 .703 .710 .718 .727 .733 .736 .736 .735 .734 .758 .764 .767 .794

.640 .640 .640 .640 .640 .640 .646 .660 .686 .693 .690 .701 .708 .717 .727 .738 .750 .748 .744 .743 .749 .757 .756 .784 .802

.640 .640 .640 .640 .640 .640 .640 .672 .710 .701 .701 .706 .713 .722 .734 .744 .752 .753 .751 .752 .762 .765 .762 .793 .782

.640 .640 .640 .640 .640 .640 .640 .669 .691 .698 .702 .708 .716 .725 .737 .750 .755 .757 .756 .755 .757 .759 .766 .766 .806

.640 .640 .640 .640 .640 .640 .647 .667 .683 .693 .701 .708 .716 .726 .738 .747 .756 .757 .756 .757 .758 .761 .791 .810 .822

.640 .640 .640 .640 .640 .640 .655 .668 .680 .690 .699 .707 .716 .726 .736 .746 .757 .758 .758 .758 .758 .773 .812 .823 .826

.640 .640 .640 .640 .640 .649 .659 .670 .680 .690 .698 .706 .715 .725 .736 .747 .756 .764 .762 .758 .759 .806 .817 .803 .822

.640 .640 .640 .644 .650 .656 .665 .674 .683 .691 .698 .706 .716 .725 .745 .762 .760 .780 .763 .757 .759 .781 .801 .791 .822

.640 .640 .640 .649 .656 .663 .671 .679 .687 .694 .699 .707 .715 .730 .745 .749 .753 .760 .758 .754 .759 .792 .804 .791 .822

.640 .640 .646 .655 .661 .668 .676 .685 .692 .697 .701 .714 .710 .729 .739 .738 .745 .750 .750 .750 .762 .809 .807 .782 .814

.640 .647 .656 .662 .666 .674 .682 .690 .700 .701 .703 .711 .715 .735 .733 .734 .742 .743 .745 .747 .756 .777 .794 .780 .806

.640 .654 .663 .670 .675 .680 .686 .692 .698 .702 .705 .711 .719 .738 .729 .733 .747 .739 .743 .744 .766 .773 .788 .769 .790

.655 .666 .672 .660 .681 .685 .690 .695 .700 .704 .706 .711 .720 .732 .733 .730 .741 .744 .741 .746 .762 .781 .767 .768 .794

.677 .666 .663 .663 .685 .688 .693 .698 .702 .706 .706 .712 .723 .728 .730 .728 .730 .738 .738 .742 .763 .777 .782 .772 .802

.694 .690 .691 .689 .690 .693 .698 .707 .706 .711 .706 .715 .727 .729 .731 .732 .731 .733 .738 .745 .766 .774 .782 .788 .820
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-769     W.L.A. AIRFIELD ANALYSIS                                                    ANAL70 PAGE   14  23 MAR 73 18:45:24
  SETS=4
GRIDPRINT OF    PHI(     X,      Y) IN UNITS 1.000D+03

.002 .006 .011 .015 .019 .024 .028 .032 .036 .040 .045 .049 .053 .058 .062 .067 .000 .000 .000 .000 .000 .000 .000 .000 .000

.005 .009 .013 .017 .021 .025 .029 .033 .037 .042 .046 .050 .053 .057 .060 .062 .000 .000 .000 .000 .000 .000 .000 .000 .000

.008 .012 .015 .019 .023 .026 .030 .035 .039 .043 .047 .051 .054 .057 .059 .060 .000 .000 .000 .000 .000 .000 .000 .000 .000

.011 .015 .018 .021 .024 .028 .032 .036 .040 .044 .048 .052 .055 .057 .059 .059 .000 .000 .000 .000 .000 .000 .000 .000 .000

.014 .017 .020 .023 .026 .029 .032 .037 .042 .046 .050 .054 .057 .059 .060 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.016 .020 .023 .025 .027 .029 .031 .037 .044 .049 .052 .056 .059 .000 .065 .066 .000 .000 .000 .000 .000 .000 .000 .000 .000

.021 .023 .025 .027 .029 .029 .000 .000 .048 .052 .056 .000 .000 .069 .069 .070 .000 .000 .000 .000 .000 .000 .000 .000 .000

.024 .026 .028 .030 .031 .031 .000 .000 .000 .000 .000 .072 .072 .072 .072 .000 .077 .078 .000 .000 .000 .000 .000 .000 .000

.027 .029 .031 .033 .034 .000 .000 .000 .000 .071 .073 .074 .075 .076 .077 .079 .079 .079 .000 .000 .000 .000 .000 .000 .000

.030 .033 .035 .037 .039 .000 .000 .000 .071 .072 .075 .076 .077 .079 .080 .081 .081 .081 .000 .000 .000 .000 .000 .000 .000

.033 .036 .039 .042 .046 .054 .062 .067 .071 .074 .076 .078 .080 .081 .082 .082 .082 .082 .000 .000 .000 .000 .000 .000 .000

.036 .039 .043 .046 .051 .057 .062 .066 .072 .075 .078 .080 .081 .082 .083 .084 .083 .083 .000 .000 .000 .000 .000 .000 .000

.039 .043 .046 .050 .054 .059 .064 .069 .073 .076 .079 .081 .082 .084 .085 .085 .085 .085 .000 .000 .000 .000 .000 .000 .000

.042 .046 .049 .053 .057 .061 .066 .070 .074 .077 .079 .082 .083 .085 .086 .086 .086 .000 .000 .000 .000 .000 .000 .000 .000

.045 .049 .052 .056 .059 .063 .068 .071 .075 .078 .080 .082 .084 .086 .087 .088 .090 .092 .093 .000 .000 .000 .000 .000 .000

.048 .052 .055 .058 .062 .066 .069 .073 .076 .079 .081 .083 .085 .086 .088 .090 .092 .094 .095 .000 .000 .000 .000 .000 .000

.052 .054 .057 .060 .064 .069 .072 .075 .077 .080 .082 .083 .085 .087 .089 .092 .095 .096 .097 .098 .000 .000 .000 .000 .000

.055 .057 .060 .062 .000 .071 .074 .076 .076 .080 .082 .083 .084 .086 .000 .000 .097 .098 .098 .099 .000 .000 .000 .000 .000

.058 .060 .063 .067 .071 .073 .075 .070 .079 .081 .082 .083 .084 .000 .000 .000 .099 .099 .099 .099 .000 .000 .000 .000 .000

.061 .063 .066 .069 .072 .075 .077 .079 .081 .082 .082 .000 .085 .000 .000 .098 .100 .100 .100 .000 .000 .000 .000 .000 .000

.064 .066 .069 .072 .075 .077 .079 .081 .082 .083 .083 .000 .000 .000 .000 .097 .000 .101 .101 .000 .000 .000 .000 .000 .000

.068 .069 .072 .075 .077 .079 .081 .082 .083 .084 .084 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.070 .000 .075 .077 .079 .081 .082 .084 .085 .086 .086 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.000 .000 .000 .079 .081 .082 .084 .085 .086 .088 .089 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.000 .000 .000 .081 .082 .084 .086 .088 .088 .089 .092 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
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721        L.A. WINDFIELD ANALYSIS                                        ANAL70 PAGE   15  23 MAR 73 18:45:25
   SETS=4
GRIDPRINT OF      V(     X,     Y) IN UNITS 1.0000+01

 .261 .218 .215 .214 .213 .212 .211 .210 .209 .210 .212 .214 .217 .221 .226 .196 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .215 .204 .199 .199 .200 .203 .206 .209 .209 .206 .201 .194 .184 .168 .136 .034 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .187 .184 .182 .182 .185 .192 .202 .210 .210 .203 .192 .178 .157 .126 .079 .028 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .165 .163 .162 .162 .166 .178 .201 .221 .219 .205 .187 .166 .140 .101 .028-.017 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .145 .144 .141 .138 .139 .152 .199 .259 .240 .209 .183 .159 .135 .131-.009 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .128 .126 .120 .111 .100 .094 .139 .430 .260 .210 .169 .163 .189 .000 .010 .157 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .110 .113 .103 .085 .056 .021 .000 .000 .179 .219 .165 .000 .000 .067-.069 .116 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .112 .107 .094 .068 .028-.004 .000 .000 .000 .000 .000 .078 .031-.003-.077 .000 .054 .029 .000 .000 .000 .000 .000 .000 .000

 .117 .112 .099 .068 .012 .000 .000 .000 .000-.164 .037 .042 .032 .036 .071 .105-.013-.014 .000 .000 .000 .000 .000 .000 .000

 .129 .127 .120 .099 .008 .000 .000 .000 .087 .107 .091 .069 .059 .057 .054 .027 .002-.003 .000 .000 .000 .000 .000 .000 .000

 .146 .147 .151 .168 .249 .422 .376 .234 .156 .113 .110 .096 .070 .049 .034 .008-.009-.033 .000 .000 .000 .000 .000 .000 .000

 .160 .164 .174 .200 .254 .303 .287 .242 .166 .125 .129 .093 .069 .048 .028-.005-.016-.015 .000 .000 .000 .000 .000 .000 .000

 .163 .172 .182 .202 .236 .250 .248 .232 .149 .155 .118 .098 .077 .056 .028-.013-.003 .042 .000 .000 .000 .000 .000 .000 .000

 .170 .173 .181 .194 .211 .221 .220 .200 .174 .142 .115 .100 .084 .064 .039 .002-.001 .000 .000 .000 .000 .000 .000 .000 .000

 .165 .167 .173 .184 .198 .206 .200 .188 .165 .130 .109 .097 .087 .075 .062 .043 .102 .061 .066 .000 .000 .000 .000 .000 .000

 .150 .157 .159 .168 .185 .202 .180 .168 .154 .118 .100 .089 .087 .092 .098 .087 .106 .060 .054 .000 .000 .000 .000 .000 .000

 .147 .145 .140 .140 .183 .139 .149 .144 .134 .103 .084 .080 .083 .097 .152 .150 .084 .047 .048 .039 .000 .000 .000 .000 .000

 .140 .138 .129 .082 .000 .118 .124 .121 .109 .084 .061 .067 .077 .061 .000 .000 .038 .019 .029 .037 .000 .000 .000 .000 .000

 .132 .136 .147 .185 .128 .110 .110 .102 .086 .062 .028 .049 .032 .000 .000 .000 .003 .006 .018 .009 .000 .000 .000 .000 .000

 .121 .124 .168 .160 .139 .114 .102 .088 .069 .040-.006 .000-.034 .000 .000 .036 .038 .007-.010 .000 .000 .000 .000 .000 .000

 .097 .115 .000 .120 .118 .106 .093 .078 .058 .030-.010 .000 .000 .000 .000 .013 .000 .014-.027 .000 .000 .000 .000 .000 .000

 .128 .179 .163 .108 .102 .094 .083 .071 .054 .031-.008 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .045 .000 .084 .091 .088 .082 .072 .065 .055 .052 .002 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .000 .000 .000 .070 .077 .075 .069 .070 .063 .000-.031 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .000 .000 .000 .069 .073 .073 .070 .063 .000 .009 .063 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
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744        L.A. WINDFIELD ANALYSIS                              ANAL70 PAGE    16  23 MAR 73 18:45:26
   SETS=4
GRIDPRINT OF        U(     X,      Y) IN UNITS 1.000D+01

.140 .121 .114 .100 .087 .076 .069 .065 .063 .060 .052 .035 .007-.041-.138-.524 .000 .000 .000 .000 .000 .000 .000 .000 .000

.150 .133 .116 .100 .080 .074 .067 .065 .064 .062 .055 .041 .016-.024-.086-.123 .000 .000 .000 .000 .000 .000 .000 .000 .000

.159 .138 .118 .099 .082 .068 .061 .062 .067 .069 .065 .054 .036 .007-.034-.078 .000 .000 .000 .000 .000 .000 .000 .000 .000

.160 .139 .119 .098 .075 .055 .045 .055 .072 .081 .081 .075 .065 .054 .023-.062 .000 .000 .000 .000 .000 .000 .000 .000 .000

.160 .141 .121 .097 .066 .032 .006 .041 .089 .103 .102 .099 .092 .116 .157 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.159 .143 .126 .102 .067 .007-.115 .025 .143 .139 .123 .139 .127 .000 .256 .202 .000 .000 .000 .000 .000 .000 .000 .000 .000

.157 .148 .136 .119 .089 .051 .000 .000 .215 .181 .324 .000 .000 .133 .093 .234 .000 .000 .000 .000 .000 .000 .000 .000 .000

.155 .155 .153 .146 .131 .109 .000 .000 .000 .000 .003 .246 .154 .161 .222 .000 .162 .072 .000 .000 .000 .000 .000 .000 .000

.152 .162 .173 .165 .194 .000 .000 .000 .000 .129 .056 .094 .128 .158 .192 .021 .073 .077 .000 .000 .000 .000 .000 .000 .000

.150 .155 .192 .235 .339 .000 .000 .000 .026 .072 .079 .091 .120 .132 .119 .076 .068 .077 .000 .000 .000 .000 .000 .000 .000

.150 .169 .193 .235 .300 .138-.018-.000 .035 .054 .070 .097 .103 .094 .088 .075 .063 .020 .000 .000 .000 .000 .000 .000 .000

.151 .164 .178 .192 .182 .129 .063 .040 .048 .052 .073 .065 .066 .072 .074 .065 .060 .112 .000 .000 .000 .000 .000 .000 .000

.153 .158 .161 .161 .146 .117 .081 .049 .030 .051 .041 .046 .053 .061 .065 .068 .063 .087 .000 .000 .000 .000 .000 .000 .000

.155 .152 .149 .141 .129 .110 .055 .067 .063 .052 .043 .041 .043 .050 .062 .085 .152 .000 .000 .000 .000 .000 .000 .000 .000

.150 .148 .139 .127 .116 .108 .093 .074 .056 .049 .041 .034 .033 .041 .064 .099 .153 .093 .107 .000 .000 .000 .000 .000 .000

.157 .146 .132 .114 .094 .116 .101 .070 .059 .044 .032 .020 .015 .023 .052 .101 .116 .091 .085 .000 .000 .000 .000 .000 .000

.157 .147 .131 .099 .192 .201 .109 .080 .057 .038 .019 .003-.008-.019 .023 .098 .107 .088 .071 .073 .000 .000 .000 .000 .000

.155 .151 .153 .195 .100 .128 .097 .070 .053 .031 .008-.012-.011-.016 .000 .000 .134 .083 .061 .044 .000 .000 .000 .000 .000

.155 .150 .155 .165 .040 .036 .067 .074 .056 .033 .004-.040 .002 .000 .000 .000 .035 .058 .051 .034 .000 .000 .000 .000 .000

.157 .140 .130 .134 .131 .091 .035 .075 .062 .046 .029 .000 .065 .000 .000-.012 .040 .042 .022 .000 .000 .000 .000 .000 .000

.142 .161 .100 .149 .112 .096 .096 .070 .068 .062 .059 .000 .000 .060 .000-.035 .000 .022 .052 .000 .000 .000 .000 .000 .000

.110 .097 .120 .117 .106 .095 .004 .070 .072 .075 .081 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.149 .000 .190 .120 .102 .090 .079 .069 .068 .067 .105 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.000 .000 .000 .103 .086 .063 .077 .045 .070 .000 .130 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.000 .000 .000 .040 .072 .075 .109 .096 .000 .000 .162 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

71       T OF 9 PLACES:77 72 79 [illegible] 77 52 77 76 7[illegible]                        ) 9 AM
70       [illegible] OF 2 [illegible] 10:40:[illegible]-70                                   ) 9 AM
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218      =L.A. .INDFIELD ANALYSIS                                      ANAL70 PAGE   17  23 MAR 73 18:45:57
   SETS=5
GRIDPRINT OF        T(      X,       Y) IN UNITS 1.0000+02

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .668 .701 .709 .726 .731 .743 .758 .775 .800

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .663 .692 .715 .730 .734 .744 .759 .774 .794

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .656 .711 .739 .743 .742 .749 .759 .775 .794

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .669 .701 .735 .750 .743 .751 .761 .776 .792

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .660 .680 .703 .729 .748 .745 .754 .763 .776 .789

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .657 .666 .679 .693 .711 .729 .748 .747 .758 .766 .778 .790

.640 .640 .640 .640 .640 .640 .650 .653 .640 .640 .640 .662 .679 .687 .690 .698 .710 .719 .742 .755 .753 .762 .769 .780 .792

.640 .640 .640 .640 .640 .640 .665 .670 .661 .664 .675 .691 .720 .712 .715 .722 .722 .729 .746 .764 .758 .766 .772 .782 .792

.640 .640 .640 .640 .640 .645 .678 .671 .672 .682 .694 .708 .722 .729 .732 .736 .739 .744 .752 .769 .763 .769 .783 .789 .800

.640 .640 .640 .640 .640 .650 .659 .673 .686 .699 .710 .721 .735 .743 .747 .752 .756 .759 .764 .785 .770 .777 .798 .798 .802

.640 .640 .640 .640 .640 .640 .657 .681 .703 .716 .725 .736 .745 .754 .763 .770 .775 .778 .777 .776 .776 .799 .805 .807 .834

.640 .640 .640 .640 .640 .640 .652 .691 .725 .736 .742 .747 .756 .768 .781 .790 .790 .794 .789 .787 .791 .799 .797 .825 .842

.640 .640 .640 .640 .640 .640 .640 .699 .770 .751 .750 .756 .766 .780 .797 .810 .811 .806 .800 .798 .807 .808 .804 .834 .822

.640 .640 .640 .640 .640 .640 .640 .694 .734 .747 .752 .760 .772 .788 .808 .840 .823 .815 .808 .803 .802 .802 .809 .807 .846

.640 .640 .640 .640 .640 .640 .653 .691 .720 .738 .750 .761 .774 .789 .806 .819 .822 .815 .808 .805 .803 .805 .834 .851 .862

.640 .640 .640 .640 .640 .640 .668 .693 .716 .734 .748 .760 .773 .786 .799 .809 .816 .812 .808 .805 .803 .817 .854 .864 .866

.640 .640 .640 .640 .640 .658 .678 .699 .718 .734 .747 .759 .771 .783 .794 .804 .810 .813 .808 .803 .803 .849 .859 .844 .862

.640 .640 .640 .650 .661 .673 .690 .708 .724 .737 .749 .760 .772 .782 .801 .815 .808 .820 .807 .801 .802 .823 .842 .832 .862

.640 .640 .640 .660 .674 .687 .702 .718 .732 .743 .752 .762 .773 .786 .798 .799 .800 .804 .801 .796 .801 .833 .845 .831 .862

.640 .640 .658 .673 .686 .699 .713 .729 .743 .750 .755 .770 .770 .784 .790 .786 .790 .793 .793 .792 .803 .850 .849 .823 .854

.640 .656 .675 .690 .706 .710 .722 .738 .760 .755 .756 .764 .768 .786 .781 .780 .786 .785 .786 .768 .796 .818 .834 .820 .846

.640 .668 .691 .708 .714 .719 .727 .738 .748 .752 .753 .759 .766 .784 .774 .776 .789 .779 .783 .784 .806 .812 .828 .809 .830

.661 .687 .700 .740 .724 .723 .728 .735 .741 .746 .746 .753 .761 .773 .773 .770 .781 .782 .780 .784 .801 .820 .807 .808 .834

.690 .737 .713 .719 .720 .721 .725 .731 .736 .740 .741 .747 .759 .764 .766 .764 .766 .774 .774 .779 .801 .815 .821 .812 .842

.714 .717 .713 .711 .713 .717 .723 .732 .733 .738 .736 .744 .757 .760 .763 .765 .765 .768 .773 .780 .802 .811 .820 .827 .860
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-709       =L.A. WINDFIELD ANALYSIS                                        ANAL70 PAGE    18  23 MAR 73 18:46:17
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.002 .008 .013 .018 .023 .028 .034 .039 .044 .049 .054 .059 .064 .070 .075 .082 .000 .000 .000 .000 .000 .000 .000 .000 .000

.006 .011 .016 .021 .026 .031 .037 .042 .047 .052 .057 .062 .067 .071 .075 .077 .000 .000 .000 .000 .000 .000 .000 .000 .000

.010 .015 .020 .024 .029 .034 .040 .045 .050 .056 .061 .065 .069 .073 .075 .076 .000 .000 .000 .000 .000 .000 .000 .000 .000

.014 .018 .023 .027 .032 .037 .042 .046 .054 .059 .064 .069 .072 .075 .077 .076 .000 .000 .000 .000 .000 .000 .000 .000 .000

.017 .022 .026 .030 .035 .039 .044 .051 .058 .063 .068 .073 .077 .079 .081 .081 .000 .000 .000 .000 .000 .000 .000 .000 .000

.021 .025 .029 .033 .037 .041 .045 .054 .063 .068 .073 .078 .082 .084 .086 .087 .088 .000 .000 .000 .000 .000 .000 .000 .000

.025 .029 .033 .037 .040 .042 .000 .000 .071 .074 .075 .000 .088 .090 .091 .092 .093 .095 .000  000 .000 .000 .000 .000 .000

.029 .033 .037 .040 .043 .045 .000 .000 .000 .084 .090 .094 .094 .095 .095 .097 .097 .097 .000 .000 .000 .000 .000 .000 .000

.032 .037 .041 .045 .048 .000 .000 .000 .090 .092 .095 .097 .098 .098 .099 .100 .100 .100 .101 .000 .112 .000 .000 .000 .000

.035 .041 .046 .050 .053 .000 .000 .089 .093 .096 .098 .100 .100 .102 .102 .103 .102 .102 .103 .000 .000 .000 .000 .000 .000

.040 .045 .050 .056 .062 .074 .084 .091 .096 .098 .100 .102 .103 .104 .104 .104 .104 .104 .106 .110 .112 .000 .000 .000 .000

.043 .049 .055 .061 .068 .077 .085 .093 .097 .100 .102 .104 .105 .106 .106 .106 .106 .106 .107 .109 .000 .000 .000 .000 .000

.047 .053 .059 .065 .072 .079 .087 .094 .098 .101 .103 .105 .106 .107 .108 .107 .107 .108 .109 .000 .000 .000 .000 .000 .000

.051 .057 .063 .069 .076 .082 .089 .095 .099 .102 .104 .106 .107 .108 .109 .109 .109 .110 .111 .000 .000 .000 .000 .000 .000

.055 .060 .066 .073 .079 .085 .091 .097 .101 .103 .105 .106 .108 .109 .110 .110 .111 .112 .113 .114 .000 .000 .000 .000 .000

.058 .064 .070 .076 .082 .088 .094 .099 .102 .104 .106 .107 .108 .109 .110 .112 .113 .114 .115 .116 .000 .000 .000 .000 .000

.062 .068 .073 .079 .085 .090 .096 .100 .103 .105 .106 .107 .108 .109 .111 .113 .115 .116 .117 .117 .000 .000 .000 .000 .000

.066 .071 .077 .082 .088 .093 .098 .101 .104 .105 .106 .107 .108 .109 .110 .000 .117 .118 .118 .119 .000 .000 .000 .000 .000

.070 .075 .080 .086 .091 .096 .099 .102 .104 .105 .106 .107 .108 .109 .000 .118 .119 .120 .120 .120 .000 .000 .000 .000 .000

.074 .079 .084 .089 .094 .097 .100 .103 .104 .106 .106 .107 .108 .110 .000 .119 .121 .121 .122 .122 .000 .000 .000 .000 .000

.077 .082 .087 .092 .096 .099 .101 .103 .105 .106 .107 .108 .109 .000 .118 .120 .122 .123 .123 .123 .000 .000 .000 .000 .000

.081 .085 .090 .094 .097 .099 .102 .104 .105 .106 .107 .108 .109 .000 .119 .120 .000 .124 .124 .124 .000 .000 .000 .000 .000

.086 .090 .093 .096 .099 .100 .102 .104 .106 .107 .108 .109 .000 .000 .000 .120 .000 .000 .000 .000 .000 .000 .000 .000 .000

.090 [illegible] .095 .097 .099 [illegible] .102 .104 .106 .108 .109 .110 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.090 [illegible] .096 .098 .100 .102 .103 [illegible] .107 .000 .110 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
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721        L.A. AIRFIELD ANALYSIS                                              ANAL70 PAGE   19   23 MAR 73 10:46:17
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 .310 .263 .259 .258 .257 .256 .255 .254 .254 .256 .258 .261 .265 .271 .277 .232 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .273 .250 .253 .252 .253 .256 .259 .261 .260 .255 .248 .238 .225 .204 .166 .057 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .249 .246 .243 .244 .247 .255 .266 .272 .269 .256 .240 .219 .190 .150 .090 .013 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .234 .232 .231 .231 .237 .251 .276 .295 .286 .261 .237 .208 .166 .115 .037-.101 .000 .009 .000 .000 .000 .000 .000 .000 .000

 .221 .220 .217 .215 .217 .234 .289 .354 .316 .265 .236 .209 .156 .101 .038-.050 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .211 .259 .203 .194 .184 .180 .237 .506 .349 .238 .222 .253 .141 .093 .062 .061 .075 .000 .000 .000 .000 .000 .000 .000 .000

 .200 .202 .193 .175 .147 .109 .000 .000 .351 .060 .213 .000 .062 .067 .044 .071 .068 .149 .000 .000 .000 .000 .000 .000 .000

 .209 .204 .191 .164 .123 .096 .000 .000 .000 .028 .204 .048-.002 .035 .051 .083 .011-.006 .000 .000 .000 .000 .000 .000 .000

 .220 .215 .202 .170 .114 .000 .000 .000 .094 .141 .137 .056 .008 .051 .048 .024-.009-.002 .129 .000 .055 .000 .000 .000 .000

 .230 .230 .230 .210 .111 .000 .000 .375 .154 .125 .085 .047 .063 .051 .016-.004-.005 .012 .060 .000 .000 .000 .000 .000 .000

 .260 .263 .269 .292 .391 .596 .304 .315 .174 .161 .089 .076 .064 .029 .010-.009-.012 .051 .139 .183 .025 .000 .000 .000 .000

 .280 .284 .296 .327 .389 .440 .407 .307 .154 .106 .104 .074 .054 .031 .010-.014-.007 .046 .051 .072 .000 .000 .000 .000 .000

 .291 .290 .306 .327 .356 .376 .375 .283 .131 .125 .097 .078 .058 .037 .012-.018-.001 .036 .043 .000 .000 .000 .000 .000 .000

 .290 .299 .306 .318 .332 .340 .337 .267 .135 .112 .091 .077 .061 .041 .019-.011 .014 .047 .037 .000 .000 .000 .000 .000 .000

 .294 .296 .300 .306 .313 .315 .311 .253 .129 .099 .082 .070 .058 .046 .034 .017 .050 .043 .053 .103 .000 .000 .000 .000 .000

 .289 .290 .292 .295 .297 .297 .291 .254 .123 .088 .071 .060 .054 .055 .060 .058 .070 .080 .046 .074 .000 .000 .000 .000 .000

 .282 .283 .283 .284 .283 .286 .258 .169 .108 .077 .058 .050 .049 .055 .098 .126 .065 .037 .038 .050 .000 .000 .000 .000 .000

 .274 .274 .275 .273 .269 .200 .253 .140 .093 .065 .043 .038 .046 .038 .173 .000 .028 .021 .024 .031 .000 .000 .000 .000 .000

 .260 .266 .266 .262 .254 .216 .162 .117 .079 .053 .026 .043 .035 .082 .000 .135 .010 .014 .015 .018 .000 .000 .000 .000 .000

 .250 .258 .258 .252 .213 .109 .134 .101 .066 .046 .019 .088 .013 .169 .000 .049 .039 .020 .012 .016 .000 .000 .000 .000 .000

 .230 .248 .252 .216 .166 .134 .115 .091 .058 .049 .030 .093 .050 .000 .166 .036 .123 .018 .012 .001 .000 .000 .000 .000 .000

 .129 .245 .240 .136 .123 .110 .103 .067 .060 .056 .036 .066 .134 .000 .124-.013 .000-.019 .037-.025 .000 .000 .000 .000 .000

 .329 .000 .168 .109 .104 .099 .097 .069 .074 .079 .036 .032 .000 .000 .000-.087 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .000 .000 .098 .036 .093 .091 .091 .093 .085 .062 .044 .012 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .000 .000 .040 .084 .080 .086 .086 .086 .090 .090 .092 .060 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
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-744      --L.A. WINDFIELD ANALYSIS                                        ANAL70 PAGE  20 23 MAR 73 18:46:18
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.167 .156 .159 .154 .150 .148 .150 .155 .160 .162 .155 .136 .104 .045-.074-.538 .000 .000 .000 .000 .000 .000 .000 .000 .000

.186 .170 .162 .155 .149 .146 .149 .155 .163 .166 .161 .145 .115 .065-.013-.050 .000 .000 .000 .000 .000 .000 .000 .000 .000

.191 .176 .164 .153 .145 .140 .143 .154 .168 .176 .174 .163 .141 .104 .049-.030 .000 .000 .000 .000 .000 .000 .000 .000 .000

.194 .170 .165 .151 .137 .129 .127 .151 .161 .195 .197 .193 .182 .161 .132 .035 .000 .000 .000 .000 .000 .000 .000 .000 .000

.194 .179 .160 .149 .127 .098 .063 .143 .212 .227 .223 .231 .232 .224 .230 .373 .000 .000 .000 .000 .000 .000 .000 .000 .000

.194 .162 .171 .154 .125 .067-.001 .137 .307 .275 .230 .281 .294 .270 .269 .279 .291 .000 .000 .000 .000 .000 .000 .000 .000

.189 .186 .161 .170 .147 .115 .000 .000 .499 .311 .407 .000 .355 .273 .234 .240 .233 .080 .000 .000 .000 .0    .000 .000 .000

.187 .193 .193 .198 .190 .240 .000 .000 .000 .559 .380 .176 .205 .198 .209 .211 .156 .115 .000 .000 .000 .000 .000 .000 .000

.184 .201 .219 .238 .255 .000 .000 .000 .190 .275 .201 .142 .148 .188 .188 .134 .129 .132 .072 .000 .082 .000 .000 .000 .000

.182 .226 .237 .290 .412 .000 .005 .039 .150 .159 .124 .115 .159 .153 .117 .101 .099 .107 .156 .000 .000 .000 .000 .000 .000

.182 .206 .236 .285 .364 .136 .005 .092 .088 .075 .084 .108 .102 .091 .092 .089 .086 .098 .105-.083-.065 .000 .000 .000 .000

.164 .230 .210 .233 .229 .151 .093 .063 .060 .058 .073 .069 .070 .074 .078 .075 .077 .077 .005-.025 .000 .000 .000 .000 .000

.183 .193 .199 .198 .181 [illegible] .079 .065 .040 .052 .047 .050 .053 .058 .062 .065 .065 .088 .096 .000 .000 .000 .000 .000 .000

.180 .169 .186 .179 .163 .137 .106 .086 .079 .060 .048 .042 .040 .042 .047 .059 .086 .115 .108 .000 .000 .000 .000 .000 .000

.189 .185 .179 .169 .155 .136 .1.4 .037 .057 .053 .042 .033 .027 .029 .043 .070 .110 .102 .103 .104 .000 .000 .000 .000 .000

.189 .183 .175 .165 .152 .136 .119 .077 .053 .042 .030 .018 .011 .013 .032 .076 .101 .094 .089 .075 .000 .000 .000 .000 .000

.190 .132 .173 .164 .152 .136 .110 .064 .042 .029 .016 .003-.007-.016-.001 .078 .106 .098 .088 .074 .000 .000 .000 .000 .000

.190 .181 .173 .164 .151 .134 .038 .032 .031 .017 .003-.011-.010-.019 .020 .000 .139 .098 .094 .071 .000 .000 .000 .000 .000

.189 .181 .173 .163 .150 .109 .063 .037 .022 .009-.004-.007 .012 .031 .000 .075 .064 .083 .081 .080 .000 .000 .000 .000 .000

.189 .180 .172 .161 .121 .073 .043 .020 .015 .009 .011 .029 .027 .060 .000 .022 .072 .080 .083 .079 .000 .000 .000 .000 .000

.190 .173 .160 .142 .087 .040 .026 .014 .009 .014 .020 .021 .035 .000 .055 .018 .018 .084 .075 .057 .000 .000 .000 .000 .000

.181 .130 .133 .091 .052 .030 .018 .015 .021 .029 .035 .022 .011 .000 .003-.015 .000 .032 .035 .070 .000 .000 .000 .000 .000

.154 .000 .113 .094 .040 .053 .029 .027 .032 .045 .052 .047 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.000 .000 .133 .052 .047 .039 .024 .031 .037 .046 .065 .064 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

.000 .000-.097 .034 .053 .035 .004 .000 .028 .008 .065 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 71      T OF 9 [illegible] 74 [illegible] 84 87 82 60 [illegible]                   110 AM
 70      [illegible] OF 2 [illegible] FROM 31 TO 49 [illegible] OF 2 [illegible] FROM 43 TO 49 [illegible] 72    110 AM
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-218       - L.A. WILDFIELD ANALYSIS                                ANAL70 PAGE   21  23 MAR 73 18:46:49
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.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .681 .725 .746 .775 .792 .816 .844 .872 .910

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .674 .717 .754 .781 .797 .819 .845 .873 .904

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .666 .737 .779 .796 .807 .825 .847 .873 .904

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .685 .732 .778 .806 .810 .830 .850 .876 .902

.640 .640 .640 .640 .640 .640 .646 .640 .640 .640 .640 .640 .640 .640 .640 .671 .703 .737 .776 .807 .815 .835 .854 .877 .899

.640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .662 .677 .698 .722 .750 .780 .811 .821 .842 .859 .879 .900

.640 .640 .640 .640 .640 .640 .651 .655 .640 .640 .640 .667 .689 .701 .708 .722 .743 .763 .798 .823 .831 .849 .865 .883 .902

.640 .646 .640 .640 .640 .640 .667 .675 .667 .672 .685 .704 .740 .732 .738 .750 .758 .776 .806 .837 .842 .859 .871 .886 .902

.640 .640 .640 .640 .640 .646 .683 .680 .684 .697 .710 .726 .743 .752 .757 .765 .776 .792 .814 .848 .855 .867 .885 .895 .910

.640 .640 .640 .640 .640 .652 .696 .687 .705 .720 .732 .744 .758 .766 .771 .778 .790 .805 .826 .867 .880 .880 .901 .904 .912

.640 .640 .640 .640 .640 .640 .665 .700 .731 .746 .755 .763 .770 .777 .785 .792 .801 .818 .835 .853 .865 .898 .907 .913 .944

.640 .640 .640 .640 .640 .640 .657 .717 .766 .777 .778 .777 .783 .791 .800 .806 .800 .828 .843 .857 .875 .892 .896 .929 .952

.640 .640 .640 .640 .640 .640 .640 .729 .640 .800 .790 .789 .794 .804 .815 .825 .831 .841 .851 .865 .885 .897 .901 .937 .932

.640 .640 .640 .640 .640 .640 .640 .720 .777 .791 .792 .795 .802 .813 .828 .850 .848 .853 .859 .868 .870 .889 .903 .909 .956

.640 .640 .640 .640 .640 .640 .659 .713 .754 .777 .788 .796 .806 .818 .832 .844 .853 .856 .862 .870 .879 .890 .928 .954 .972

.640 .640 .640 .640 .640 .640 .680 .715 .746 .769 .784 .796 .808 .820 .832 .843 .855 .858 .863 .871 .879 .902 .948 .966 .976

.640 .640 .640 .640 .640 .666 .695 .723 .748 .768 .784 .797 .809 .821 .833 .845 .854 .862 .866 .871 .880 .935 .953 .946 .972

.640 .640 .640 .655 .670 .689 .712 .735 .755 .773 .787 .800 .814 .825 .845 .861 .857 .870 .867 .870 .881 .910 .937 .934 .972

.640 .640 .646 .671 .691 .709 .729 .749 .767 .781 .793 .806 .818 .833 .848 .850 .854 .862 .866 .869 .881 .922 .941 .934 .972

.640 .640 .670 .693 .712 .729 .746 .764 .781 .791 .799 .817 .820 .835 .844 .843 .850 .857 .862 .868 .887 .940 .944 .926 .964

.640 .667 .697 .723 .737 .748 .765 .777 .800 .799 .803 .813 .821 .841 .839 .841 .851 .854 .860 .867 .882 .909 .932 .924 .956

.640 .667 .727 .758 .763 .764 .770 .781 .792 .798 .803 .812 .822 .843 .836 .841 .858 .852 .860 .867 .894 .906 .927 .913 .940

.668 .712 .751 .820 .781 .772 .774 .781 .788 .795 .800 .808 .820 .835 .839 .839 .853 .859 .861 .870 .891 .915 .907 .913 .944

.703 .732 .751 .768 .766 .767 .770 .777 .784 .792 .796 .806 .821 .829 .835 .837 .843 .855 .859 .867 .894 .912 .923 .917 .952

.734 .741 .740 .742 .744 .736 .736 .779 .783 .792 .794 .805 .822 .829 .835 .841 .845 .851 .860 .872 .897 .910 .923 .933 .970
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-709          - L.A. WINDFIELD ANALYSIS                                              ANAL70 PAGE    22  23 MAR 73 18:47:10
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 .002 .000 .014 .019 .024 .030 .035 .041 .046 .052 .057 .062 .068 .074 .079 .086 .000 .000 .000 .000 .000 .115 .120 .124 .127

 .006 .012 .017 .023 .028 .034 .040 .045 .051 .056 .062 .067 .072 .077 .082 .085 .000 .000 .000 .000 .000 .125 .126 .126 .127

 .010 .016 .021 .027 .032 .036 .042 .048 .055 .061 .067 .072 .077 .081 .085 .087 .089 .000 .000 .000 .000 .132 .130 .128 .126

 .014 .020 .025 .030 .036 .041 .047 .054 .060 .067 .072 .078 .082 .086 .090 .091 .000 .000 .000 .000 .000 .135 .132 .129 .127

 .018 .023 .029 .034 .039 .044 .051 .058 .066 .072 .078 .084 .088 .092 .096 .098 .101 .000 .000 .000 .136 .136 .133 .130 .127

 .022 .027 .032 .037 .042 .047 .053 .061 .072 .079 .085 .090 .095 .099 .102 .105 .108 .112 .000 .000 .136 .135 .133 .130 .127

 .026 .031 .036 .041 .045 .049 .056 .070 .081 .087 .092 .099 .102 .105 .108 .110 .113 .115 .000 .000 .135 .134 .132 .130 .128

 .030 .035 .041 .045 .049 .052 .058 .063 .080 .097 .103 .106 .108 .110 .112 .115 .117 .118 .120 .000 .133 .132 .131 .130 .128

 .034 .040 .045 .050 .054 .060 .068 .083 .102 .105 .108 .110 .112 .113 .115 .118 .119 .120 .121 .000 .131 .130 .130 .130 .129

 .038 .044 .050 .058 .064 .080 .098 .102 .107 .109 .111 .113 .114 .116 .118 .119 .120 .121 .123 .000 .128 .128 .000 .000 .000

 .042 .048 .055 .062 .070 .083 .095 .104 .109 .111 .113 .115 .117 .118 .119 .120 .121 .122 .124 .126 .126 .000 .000 .000 .000

 .046 .053 .060 .066 .074 .086 .097 .105 .110 .112 .114 .116 .118 .119 .121 .121 .122 .123 .124 .125 .125 .000 .000 .000 .000

 .050 .057 .064 .072 .081 .090 .099 .107 .110 .113 .115 .117 .119 .120 .121 .122 .123 .124 .125 .125 .000 .000 .000 .000 .000

 .054 .061 .069 .076 .084 .092 .101 .106 .111 .114 .116 .118 .119 .121 .122 .123 .124 .125 .126 .126 .128 .129 .000 .000 .000

 .058 .065 .072 .080 .088 .095 .103 .109 .113 .115 .117 .118 .120 .121 .122 .123 .124 .126 .126 .127 .128 .129 .000 .000 .000

 .062 .069 .075 .084 .091 .099 .105 .110 .113 .115 .117 .119 .120 .121 .123 .124 .125 .126 .127 .128 .128 .000 .000 .000 .000

 .066 .073 .080 .087 .094 .101 .107 .111 .114 .116 .117 .119 .120 .121 .123 .125 .126 .127 .127 .128 .128 .000 .000 .000 .000

 .070 .077 .084 .091 .098 .104 .109 .112 .114 .116 .117 .119 .120 .121 .122 .126 .127 .127 .128 .128 .128 .000 .000 .000 .000

 .074 .081 .088 .095 .101 .106 .109 .112 .114 .116 .117 .118 .119 .121 .124 .127 .128 .128 .128 .128 .128 .000 .000 .000 .000

 .078 .085 .092 .098 .104 .107 .110 .112 .114 .115 .117 .118 .119 .121 .126 .127 .128 .123 .128 .128 .129 .000 .000 .000 .000

 .082 .089 .095 .100 .104 .107 .109 .112 .113 .115 .116 .117 .119 .000 .126 .127 .128 .123 .129 .129 .120 .000 .000 .000 .000

 .086 .092 .098 .102 .104 .107 .109 .111 .113 .114 .116 .117 .119 .000 .126 .126 .127 .128 .129 .129 .000 .000 .000 .000 .000

 .090 .094 .097 .102 .104 .106 .108 .109 .112 .114 .115 .116 .118 .000 .124 .125 .126 .128 .128 .128 .000 .000 .000 .000 .000

 .094 .098 .101 .104 .104 .105 .107 .109 .111 .112 .114 .116 .116 .120 .122 .124 .125 .126 .127 .128 .000 .000 .000 .000 .000

 .098 .100 .101 .103 .104 .106 .107 .107 .110 .112 .113 .115 .000 .000 .119 .121 .122 .124 .125 .127 .000 .000 .000 .000 .000
 721      - L.A. WINDFIELD ANALYSIS                                   ANAL70-PAGE   23  23 MAR 73 18:47:11
    SETS=6
GRIDPRINT OF       V(     X,     Y) IN UNITS 1.000D+01

 .334 .278 .273 .272 .271 .270 .269 .269 .268 .269 .271 .274 .277 .282 .267 .237 .000 .000 .000 .000 .000 .278 .223 .172 .113

 .295 .280 .274 .273 .275 .278 .281 .283 .282 .278 .271 .263 .252 .235 .199 .085 .000 .000 .000 .000 .000 .063 .034 .023 .025

 .277 .274 .272 .272 .276 .285 .295 .302 .299 .288 .273 .255 .232 .200 .150 .077 .202 .000 .000 .000 .000-.098-.098-.082-.074

 .268 .267 .266 .268 .274 .289 .313 .301 .324 .302 .277 .251 .220 .183 .130 .033 .000 .000 .000 .000 .000-.063-.143-.135-.148

 .261 .260 .259 .258 .263 .284 .334 .393 .365 .316 .283 .252 .214 .180 .144 .110 .244 .000 .000 .000 .156-.073-.149-.153-.179

 .257 .255 .250 .243 .237 .244 .356 .642 .418 .303 .282 .256 .199 .179 .151 .137 .168 .292 .000 .000-.022-.071-.133-.145-.169

 .257 .254 .245 .228 .202 .165 .000 .000 .444 .145 .341 .150 .147 .149 .090 .142 .136 .111 .000 .000-.020-.058-.102-.115-.139

 .264 .259 .247 .221 .180 .149 .000 .000 .000 .136 .295 .110 .063 .098 .066 .159 .073 .068 .165 .000 .004-.040-.053-.071-.098

 .279 .275 .262 .231 .173 .000 .000 .000 .154 .152 .146 .080 .056 .097 .102 .092 .053 .056 .105 .000-.020-.046 .053-.026-.071

 .302 .301 .295 .276 .176 .000 .000 .452 .164 .119 .093 .059 .089 .090 .071 .060 .054 .055 .066 .000-.039-.031 .000 .000 .000

 .328 .330 .330 .304 .471 .688 .464 .338 .169 .102 .093 .089 .087 .067 .056 .048 .045 .065 .076 .098-.024 .000 .000 .000 .000

 .350 .354 .360 .402 .469 .527 .503 .309 .148 .105 .106 .089 .078 .065 .053 .037 .046 .057 .045 .015 .008 .000 .000 .000 .000

 .363 .368 .380 .402 .434 .457 .458 .275 .118 .120 .103 .092 .079 .066 .051 .030 .040 .043 .045 .005 .000 .000 .000 .000 .000

 .369 .372 .380 .392 .406 .414 .407 .244 .123 .110 .099 .090 .080 .066 .050 .028 .042 .052 .040 .041 .101 .005 .000 .000 .000

 .369 .371 .374 .380 .385 .365 .330 .223 .120 .099 .090 .083 .075 .065 .054 .040 .058 .042 .035 .042 .049 .027 .000 .000 .000

 .360 .366 .367 .368 .367 .364 .335 .187 .117 .091 .080 .073 .069 .066 .065 .058 .063 .035 .027 .032 .035 .000 .000 .000 .000

 .361 .361 .360 .357 .352 .342 .254 .160 .108 .083 .070 .065 .064 .063 .084 .090 .054 .030 .022 .017 .020 .000 .000 .000 .000

 .350 .357 .354 .347 .338 .276 .195 .138 .098 .076 .061 .057 .062 .056 .102 .125 .033 .021 .013 .007 .012 .000 .000 .000 .000

 .350 .355 .352 .334 .286 .207 .159 .120 .089 .070 .051 .062 .056 .102 .170 .065 .018 .014 .008 .000 .012 .000 .000 .000 .000

 .350 .355 .352 .277 .211 .165 .135 .106 .082 .067 .046 .093 .044 .125 .114 .037 .027 .016 .006-.002 .028 .000 .000 .000 .000

 .351 .357 .305 .206 .156 .136 .118 .099 .077 .070 .058 .098 .068 .000 .066 .023 .053 .016 .007-.002 .035 .000 .000 .000 .000

 .300 .328 .240 .151 .123 .113 .136 .095 .086 .074 .064 .086 .110 .000 .055 .018 .120 .008 .009-.001 .000 .000 .000 .000 .000

-.029 .323 .179 .106 .166 .102 .098 .092 .062 .061 .065 .068 .097 .000 .076 .012 .089 .037 .012 .014 .000 .000 .000 .000 .000

 .000 .000 .064 .082 .092 .090 .066 .039 .082 .066 .065 .073 .112 .128 .089 .043 .056 .076 .040 .005 .000 .000 .000 .000 .000

 .000 .000 .064 .075 .074 .075 .076 .076 .078 .079 .080 .063 .000 .009 .074 .093 .072 .074 .079 .068 .000 .000 .000 .000 .000
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-744       -- L.A. AIRFIELD ANALYSIS                                                  ANALZ0 PAGE    24  23 MAR 73 18:47:11
  SETS=0
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.173 .171 .181 .184 .183 .194 .204 .217 .230 .240 .244 .237 .217 .175 .076-.391 .000 .000 .000 .000 .000 .578 .332 .120-.037
.190 .186 .185 .185 .188 .192 .202 .217 .232 .244 .249 .244 .227 .194 .139 .135 .000 .000 .000 .000 .000 .453 .259 .109-.016
.200 .192 .187 .183 .182 .185 .196 .215 .237 .253 .261 .259 .246 .227 .195 .127 .018 .000 .000 .000 .000 .222 .159 .078-.002
.201 .194 .187 .180 .174 .171 .181 .211 .245 .272 .282 .284 .279 .270 .266 .281 .000 .000 .000 .000 .000 .094 .076 .048 .010
.201 .195 .183 .177 .162 .144 .144 .199 .270 .304 .310 .317 .314 .310 .321 .361 .389 .000 .000 .000 .058 .000 .021 .022 .017
.201 .197 .191 .179 .155 .135 .092 .152 .306 .355 .328 .367 .356 .332 .338 .320 .301 .143 .000 .000-.011-.036-.019 .003 .024
.199 .201 .201 .193 .172 .136 .000 .000 .573 .399 .507 .511 .376 .305 .222 .231 .215 .157 .000 .000-.122-.081-.047-.009 .028
.197 .200 .217 .221 .216 .208 .000 .000 .000 .562 .283 .261 .209 .185 .184 .198 .140 .106 .054 .000-.115-.108-.072-.016 .033
.194 .215 .237 .261 .283 .000 .000 .000 .236 .269 .208 .151 .145 .165 .160 .087 .089 .086 .062 .000-.087-.123-.076-.006 .026
.192 .221 .255 .314 .445 .000 .000 .135 .130 .134 .114 .105 .135 .125 .090 .066 .059 .057 .076 .000-.099-.114 .000 .000 .000
.192 .220 .253 .306 .384 .137 .027 .005 .078 .062 .069 .087 .082 .070 .064 .054 .046 .045 .042-.047-.090 .000 .000 .000 .000
.193 .213 .233 .250 .241 .163 .073 .077 .048 .041 .053 .052 .053 .053 .052 .046 .043 .036 .011-.095-.024 .000 .000 .000 .000
.197 .206 .212 .212 .193 .149 .085 .051 .024 .035 .033 .036 .038 .040 .039 .036 .028 .037 .039 .040 .000 .000 .000 .000 .000
.199 .200 .199 .191 .173 .144 .107 .075 .003 .049 .038 .032 .026 .026 .025 .028 .039 .054 .036 .049 .037 .006 .000 .000 .000
.200 .197 .192 .182 .167 .145 .119 .067 .048 .044 .035 .025 .016 .016 .019 .030 .050 .036 .028 .022 .002-.014 .000 .000 .000
.200 .195 .189 .180 .168 .140 .117 .050 .038 .031 .023 .012 .005 .003 .010 .030 .038 .028 .022 .015-.002 .000 .000 .000 .000
.200 .190 .190 .182 .159 .135 .093 .038 .022 .015 .006-.004-.011-.018-.012 .027 .035 .028 .021 .011-.006 .000 .000 .000 .000
.200 .197 .193 .186 .172 .145 .090 .020 .006-.013-.011-.019-.017-.018 .000 .096 .051 .028 .019 .012 .004 .000 .000 .000 .000
.193 .193 .193 .194 .140 .095 .063 .001-.010-.017-.024-.023-.010 .012 .104 .006 .013 .018 .015 .013 .013 .000 .000 .000 .000
.193 .196 .193 .133 .071 .026-.003-.015-.023-.025-.022-.036-.005 .016 .073-.000 .007 .012 .013 .010 .011 .000 .000 .000 .000
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.211 .130 .100 .057 .003-.018-.030-.035-.034-.030-.020-.033-.029 .000-.044-.045-.034-.010-.008 .000 .000 .000 .000 .000 .000
.167 .000 .061 .003-.011-.018-.027-.035-.035-.031-.025-.031-.025 .000-.084-.058-.080-.096-.049-.036 .000 .000 .000 .000 .000
.000 .000 .055 .022 .003-.018-.020-.030-.040-.041-.030-.031-.030-.090-.125-.099-.076-.091-.065-.036 .000 .000 .000 .000 .000
.000 .030-.031 [illegible] .019-[illegible]-.019-.042-.001-.059-.026 .090 .050-.164-.210-.156-.121-.116-.013 .000 .000 .000 .000 .000

71      T [illegible] 91 37 92 36 24 0
40      [illegible] 63-73 40 74                                   111 AM
                                                                  111 AM
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218      - L.A. WINDFIELD ANALYSIS                                ANAL70 PAGE   25  23 MAR 73 18:47:43
   SETS=7
GRIDPRINT OF       T(      X,      Y) IN UNITS 1.0000+03

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .069 .074 .076 .080 .082 .085 .088 .092 .096

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .068 .073 .077 .080 .083 .085 .088 .092 .095

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .067 .075 .080 .082 .084 .086 .089 .092 .095

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .069 .075 .080 .083 .084 .087 .089 .092 .095

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .068 .072 .076 .080 .084 .085 .087 .090 .092 .095

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .067 .069 .072 .074 .078 .081 .084 .086 .088 .090 .093 .095

.064 .064 .064 .064 .064 .064 .065 .066 .064 .064 .064 .068 .071 .073 .074 .075 .077 .080 .083 .086 .087 .089 .091 .093 .095

.064 .064 .064 .064 .064 .064 .067 .066 .067 .068 .070 .074 .080 .078 .078 .079 .080 .081 .084 .086 .088 .090 .092 .093 .095

.064 .064 .064 .064 .064 .065 .069 .069 .070 .072 .074 .076 .079 .080 .080 .081 .082 .084 .086 .089 .090 .091 .093 .094 .096

.064 .064 .064 .064 .064 .065 .067 .070 .072 .074 .076 .078 .080 .081 .082 .083 .084 .085 .087 .091 .092 .092 .095 .095 .096

.064 .064 .064 .064 .064 .064 .067 .071 .075 .077 .079 .080 .081 .083 .084 .085 .086 .087 .089 .090 .091 .094 .095 .096 .099

.064 .064 .064 .064 .064 .064 .066 .073 .079 .081 .081 .082 .083 .084 .086 .087 .087 .089 .090 .091 .092 .094 .095 .098 .100

.064 .064 .064 .064 .064 .064 .064 .074 .087 .083 .083 .083 .084 .085 .087 .089 .090 .090 .091 .092 .094 .095 .095 .099 .098

.064 .064 .064 .064 .064 .064 .064 .073 .080 .082 .083 .084 .085 .086 .088 .091 .091 .091 .092 .092 .093 .094 .095 .096 .101

.064 .064 .064 .064 .064 .064 .066 .073 .078 .081 .082 .084 .085 .087 .089 .090 .091 .092 .092 .093 .093 .094 .098 .100 .102

.064 .064 .064 .064 .064 .064 .069 .073 .077 .080 .082 .084 .085 .087 .088 .090 .091 .092 .092 .093 .093 .096 .100 .102 .103

.064 .064 .064 .064 .064 .067 .071 .074 .077 .080 .082 .084 .085 .087 .088 .090 .091 .092 .092 .093 .093 .099 .100 .100 .102

.064 .064 .064 .066 .068 .070 .073 .076 .078 .081 .082 .084 .086 .087 .090 .091 .091 .093 .092 .093 .094 .096 .099 .099 .102

.064 .064 .064 .068 .071 .073 .075 .078 .080 .082 .083 .085 .086 .088 .090 .090 .091 .092 .092 .092 .094 .097 .099 .098 .102

.064 .064 .066 .071 .074 .076 .078 .080 .082 .083 .084 .086 .086 .088 .089 .089 .090 .091 .092 .092 .094 .099 .100 .098 .101

.064 .068 .072 .075 .077 .078 .080 .082 .084 .084 .085 .086 .087 .089 .089 .089 .090 .091 .091 .092 .094 .096 .098 .097 .101

.064 .071 .076 .080 .081 .081 .081 .082 .084 .084 .085 .086 .087 .089 .089 .089 .091 .091 .091 .092 .095 .096 .098 .096 .099

.069 .074 .079 .080 .083 .082 .082 .083 .084 .084 .085 .086 .087 .089 .089 .089 .091 .091 .091 .092 .094 .097 .096 .096 .099

.074 .078 .080 .082 .082 .082 .082 [illegible] .084 .084 .085 .086 .087 .088 .089 .089 .090 .091 .091 .092 .095 .096 .097 .097 .100

.079 .080 .080 .080 .081 .081 .082 .084 .084 .085 .085 .086 .086 .088 .089 .089 .090 .090 .091 .092 .095 .096 .097 .098 .102
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709      - L.A. SIMPLIFIED ANALYSIS                              ANAL70 PAGE   26  23 MAR 73 18:48:05
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GRIDPRINT OF    PHI(     X,     Y) IN UNITS 1.0000+03

 .003 .013 .021 .030 .038 .046 .055 .063 .071 .079 .088 .096 .105 .113 .122 .132 .000 .000 .000 .000 .168 .177 .185 .193 .199

 .009 .018 .027 .035 .044 .052 .061 .070 .079 .087 .096 .104 .112 .120 .126 .131 .000 .000 .000 .000 .187 .191 .194 .196 .199

 .015 .024 .033 .041 .050 .059 .068 .077 .086 .096 .104 .112 .120 .127 .132 .136 .139 .000 .000 .000 .000 .202 .200 .199 .198

 .022 .030 .039 .047 .056 .065 .074 .084 .095 .104 .113 .121 .126 .135 .140 .143 .000 .000 .000 .000 .206 .206 .203 .200 .198

 .028 .036 .044 .053 .061 .070 .080 .091 .103 .114 .123 .131 .138 .144 .149 .153 .157 .000 .000 .000 .208 .207 .204 .201 .198

 .034 .042 .050 .058 .066 .074 .083 .097 .113 .125 .134 .142 .148 .154 .159 .162 .166 .171 .180 .000 .206 .205 .203 .201 .199

 .040 .048 .056 .064 .072 .078 .080 .000 .128 .138 .145 .153 .159 .163 .166 .169 .172 .175 .179 .000 .203 .203 .202 .201 .200

 .046 .055 .063 .071 .075 .083 .000 .000 .000 .153 .158 .163 .166 .166 .170 .174 .176 .179 .182 .000 .199 .200 .200 .200 .200

 .052 .061 .070 .078 .085 .000 .000 .000 .150 .162 .166 .168 .170 .172 .175 .177 .179 .181 .184 .190 .195 .196 .197 .200 .201

 .058 .068 .077 .087 .095 .000 .139 .155 .163 .167 .170 .172 .173 .175 .177 .179 .181 .182 .184 .188 .192 .192 .000 .199 .202

 .064 .074 .085 .096 .109 .129 .145 .156 .165 .169 .172 .174 .176 .178 .179 .181 .182 .183 .185 .187 .189 .000 .000 .000 .202

 .070 .081 .092 .104 .118 .133 .148 .160 .167 .170 .173 .176 .178 .179 .181 .182 .183 .184 .185 .187 .188 .191 .195 .000 .203

 .076 .087 .099 .111 .124 .137 .151 .162 .168 .171 .174 .177 .179 .180 .182 .182 .183 .184 .185 .186 .188 .000 .195 .000 .000

 .082 .094 .105 .117 .129 .142 .154 .164 .169 .172 .175 .177 .179 .181 .182 .183 .184 .185 .186 .187 .188 .191 .000 .200 .203

 .088 .100 .111 .123 .135 .146 .155 .167 .171 .174 .176 .178 .180 .182 .183 .184 .184 .186 .186 .187 .188 .191 .000 .201 .203

 .094 .106 .117 .129 .14[illegible] .151 .162 .169 .172 .175 .177 .179 .180 .182 .183 .184 .185 .186 .187 .187 .188 .000 .198 .201 .204

 .100 .112 .123 .134 .145 .156 .165 .170 .173 .175 .177 .179 .180 .182 .183 .185 .186 .187 .187 .188 .188 .000 .198 .201 .204

 .106 .119 .129 .14[illegible] .151 .160 .165 .170 .173 .175 .177 .178 .180 .181 .183 .186 .187 .188 .188 .188 .188 .000 .000 .000 .204

 .112 .124 .135 .147 .158 .162 .167 .171 .173 .175 .177 .178 .179 .181 .184 .187 .188 .188 .188 .188 .189 .000 .197 .000 .204

 .118 .130 .142 .151 .15[illegible] .163 .167 .170 .173 .175 .176 .178 .179 .181 .185 .187 .188 .189 .189 .189 .189 .193 .199 .000 .205

 .124 .137 .147 .154 .15[illegible] .163 .167 .170 .172 .174 .175 .177 .179 .182 .186 .187 .188 .189 .190 .190 .190 .000 .000 .000 .205

 .131 .142 .150 .156 .16[illegible] .163 .166 .169 .171 .173 .175 .177 .179 .182 .186 .187 .188 .190 .190 .191 .000 .000 .000 .000 .000

 .136 .145 .152 .15[illegible] .15[illegible] .162 .16[illegible] .166 .170 .173 .175 .177 .179 .182 .185 .187 .188 .191 .191 .192 .000 .000 .000 .000 .206

 .144 .149 .153 .15[illegible] [illegible] .16[illegible] .164 .167 .169 .172 .174 .176 .179 .182 .185 .187 .188 .191 .192 .193 .000 .000 .000 .000 .206

 .151 .152 .15[illegible] .157 [illegible] .161 .164 .16[illegible] .169 .171 .174 .176 .179 .181 .183 .18[illegible] .188 .190 .193 .196 .000 .000 .000 .000 .206
 721      W.L.A. WINDFIELD ANALYSIS                                    ANALTO PAGE   27  23 MAR 73 18:48:05
   SETS=7
 GRIDPRINT OF      V(     X,     Y) IN UNITS 1.000E+02

 .052 .043 .042 .042 .042 .042 .041 .041 .041 .042 .042 .042 .043 .043 .044 .037 .000 .000 .000 .000 .026 .041 .038 .034 .030

 .040 .044 .043 .042 .043 .043 .044 .044 .044 .043 .042 .041 .039 .037 .031 .012 .000 .000 .000 .000 .034 .011 .011 .012 .015

 .044 .043 .043 .043 .043 .045 .046 .047 .046 .045 .042 .039 .036 .032 .025 .016 .006 .000 .000 .000 .000-.008-.008-.004-.000

 .043 .042 .042 .043 .044 .046 .049 .052 .051 .047 .042 .038 .034 .029 .022 .011 .000 .000 .000 .000 .027-.012-.015-.011-.011

 .042 .042 .042 .041 .042 .045 .053 .062 .057 .049 .042 .037 .032 .028 .023 .018 .021 .000 .000 .000 .000-.010-.015-.013-.015

 .042 .041 .041 .040 .039 .040 .057 .039 .067 .049 .041 .036 .030 .028 .019 .018 .018 .033 .042 .000 .002-.005-.011-.011-.013

 .042 .041 .040 .038 .034 .029 .003 .000 .073 .040 .037 .033 .021 .020 .011 .017 .017 .016 .027 .000 .003-.001-.006-.006-.007

 .043 .043 .041 .037 .031 .026 .000 .000 .000 .023 .030 .019 .008 .013 .011 .019 .011 .011 .028 .000 .007 .003 .002 .001 .000

 .046 .045 .043 .039 .032 .060 .000 .000 .027 .019 .015 .010 .007 .012 .013 .012 .008 .010 .018 .045 .006 .003 .015 .008 .007

 .049 .049 .048 .046 .034 .000 .065 .072 .025 .016 .011 .008 .010 .010 .009 .008 .008 .008 .010 .028 .002 .005 .000 .008 .020

 .052 .053 .054 .056 .074 .101 .075 .052 .026 .015 .012 .011 .010 .008 .007 .006 .006 .009 .010 .014 .002 .000 .000 .000 .022

 .055 .056 .059 .063 .072 .078 .075 .045 .022 .015 .014 .011 .009 .007 .006 .004 .005 .007 .007 .005 .009 .034 .007 .000 .001

 .057 .058 .059 .062 .066 .069 .059 .038 .017 .016 .013 .011 .009 .007 .005 .003 .004 .005 .006 .004 .016 .000 .010 .000 .000

 .058 .058 .059 .061 .062 .063 .061 .033 .017 .014 .012 .011 .009 .007 .005 .002 .004 .005 .005 .005 .012 .016 .000 .018 .013

 .058 .058 .058 .059 .059 .058 .037 .029 .015 .012 .011 .010 .008 .007 .005 .003 .005 .004 .003 .005 .007 .014 .000 .016 .008

 .058 .058 .057 .057 .057 .055 .047 .024 .015 .011 .010 .008 .006 .007 .006 .005 .006 .003 .002 .003 .005 .000 .022 .015 .012

 .057 .057 .057 .056 .055 .050 .033 .020 .013 .010 .008 .007 .007 .007 .009 .009 .005 .002 .002 .002 .004 .000 .017 .016 .012

 .058 .057 .056 .055 .052 .037 .025 .017 .012 .009 .007 .007 .007 .006 .013 .013 .003 .001 .001 .001 .004 .000 .000 .000-.002

 .059 .058 .057 .051 .039 .028 .041 .015 .011 .009 .006 .007 .007 .011 .019 .008 .002 .001 .000-.000 .004 .000 .010 .000-.012

 .063 .060 .055 .054 .029 .022 .016 .014 .010 .008 .006 .010 .006 .014 .014 .005 .003 .002 .000-.001 .005 .018 .013 .000-.013

 .063 .059 .043 .030 .022 .018 .016 .013 .010 .009 .007 .011 .006 .030 .010 .004 .007 .003 .001-.000 .010 .000 .000 .000-.007

 .060 .049 .034 .022 .016 .016 .019 .013 .011 .010 .009 .013 .011 .032 .009 .005 .013 .003 .001-.000 .000 .000 .000 .000 .000

 .041 .039 .025 .017 .016 .015 .014 .013 .011 .011 .019 .010 .013 .020 .012 .005 .010 .005 .002 .000 .000 .000 .000 .000 .013

 .027 .026 .016 .014 .014 .013 .013 .013 .012 .012 .010 .011 .015 .015 .013 .009 .010 .010 .006 .002 .000 .000 .000 .000 .002

 .016 .010 .010 .012 .012 .012 .012 .014 .012 .012 .013 .013 .012 .011 .012 .013 .012 .012 .013 .013 .000 .000 .000 .000 .005
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244        - L.A. [illegible] ANALYSIS                                   ANAL70 PAGE   28  23 MAR 73 18:48:06
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GRIDPRINT OF      U(     X,      Y) IN UNITS 1.0000+02
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 .027 .026 .028 .029 .030 .032 .031 .036 .038 .040 .040 .039 .036 .030 .015-.058 .000 .000 .000 .000 .145 .086 .049 .019-.005

 .030 .029 .029 .029 .030 .031 .031 .036 .036 .040 .041 .040 .036 .033 .025 .024 .000 .000 .000 .000 .070 .064 .038 .016-.003

 .031 .030 .029 .029 .024 .030 .031 .036 .039 .042 .043 .042 .041 .037 .033 .027 .012 .000 .000 .000 .000 .036 .023 .011-.001

 .031 .030 .029 .029 .028 .030 .031 .035 .041 .045 .046 .046 .045 .043 .042 .044 .000 .000 .000 .000 .021 .009 .010 .006 .001

 .031 .030 .029 .025 .026 .024 .021 .034 .046 .051 .052 .051 .049 .048 .049 .052 .056 .000 .000 .000-.003-.003-.001 .002 .002

 .031 .030 .030 .029 .025 .018 .021 .027 .059 .061 .058 .056 .053 .050 .046 .039 .037 .029-.014 .000-.013-.010-.005-.001 .003

 .030 .031 .031 .031 .028 .023 .001 .030 .086 .073 .063 .060 .046 .034 .025 .028 .026 .017 .005 .000-.019-.015-.009-.003 .004

 .030 .032 .033 .035 .034 .044 .031 .060 .000 .065 .055 .036 .024 .021 .021 .022 .017 .014 .012 .000-.020-.017-.012-.004 .004

 .030 .033 .036 .040 .044 .040 .001 .030 .031 .033 .026 .020 .018 .019 .018 .010 .010 .009 .005-.013-.016-.019-.012-.002 .004

 .030 .034 .038 .047 .066 .060 .034 .039 .014 .015 .014 .013 .016 .015 .011 .008 .006 .005 .005 .001-.014-.017 .000-.002-.001

 .030 .033 .036 .045 .054 .016 .016 .013 .008 .007 .008 .010 .010 .009 .006 .006 .004 .003 .003-.006-.012 .000 .000 .000 .006

 .030 .032 .035 .037 .035 .024 .016 .012 .007 .005 .006 .006 .006 .006 .006 .005 .003 .002-.001-.003-.003-.001-.003 .000 .002

 .030 .031 .032 .032 .029 .023 .015 .009 .004 .004 .004 .004 .004 .004 .004 .003 .002 .003 .002 .001 .004 .000 .003 .000 .000

 .030 .031 .030 .029 .027 .022 .017 .012 .009 .007 .005 .004 .003 .003 .003 .003 .003 .005 .002 .002 .001-.006 .000 .006 .003

 .031 .030 .030 .026 .026 .023 .015 .010 .007 .006 .004 .003 .002 .002 .002 .003 .005 .004 .002 .001-.001-.000 .000 .001 .001

 .031 .030 .030 .028 .027 .024 .015 .008 .005 .004 .003 .002 .001 .000 .001 .003 .004 .003 .002 .001-.001 .000 .003 .001 .002

 .031 .030 .030 .029 .028 .024 .011 .005 .003 .002 .001-.000-.001-.002-.001 .003 .004 .003 .003 .001 .000 .000-.000 .001 .002

 .030 .031 .031 .030 .027 .015 .014 .002 .001-.000-.001-.002-.002-.002 .002 .009 .006 .003 .003 .002 .001 .000 .000 .000 .004

 .030 .031 .033 .031 .018 .008 .002-.000-.001-.002-.003-.003-.001 .001 .007 .002 .002 .003 .003 .002 .001 .000 .001 .000 .002

 .030 .032 .027 .010 .006 .013-.003-.004-.003-.002-.003-.009-.010 .002 .004-.000 .002 .003 .003 .004 .004 .002 .001 .000 .001

 .030 .031 .021 .011 .004-.001-.003-.004-.005-.004-.003-.002-.002 .003 .006-.001 .009 .004 .004 .004 .007 .000 .000 .000-.000

 .030 .020 .011 .004-.001-.003-.004-.005-.004-.003-.002-.002-.002-.001-.001-.000 .000 .003 .004 .005 .000 .000 .000 .000 .000

 .032 .017 .007-.001-.002-.003-.004-.004-.004-.003-.002-.002 .001-.001-.003-.000 .000 .001 .004 .005 .000 .000 .000 .000 .001

 .031 .010 .003 .002-.000-.002-.002-.005-.004-.004-.002-.001-.000-.003-.005-.003-.001-.000 .004 .010 .000 .000 .000 .000 .003

 .030 .012 .002 .003-.001-.001-.001-.001-.003-.004-.003 .002 .000-.006-.010-.009-.004-.001 .003 .018 .000 .000 .000 .000-.005

 71      T OF 9 [illegible] 74 [illegible] 94 91 96 91 90 67                               )12  M
 -40-     NO OF 2 ( FROM [illegible] POISE OF 2 , FROM 43 TO 49[illegible]86                  )12  M
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218      = L.A. WINDFIELD ANALYSIS                                    ANAL70 PAGE   29  23 MAR 73 18:48:38
 SEIS=8
GRIDPRINT OF      T(     X,     Y) IN UNITS 1.0000+03

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .069 .075 .078 .082 .085 .088 .092 .096 .101
.064 .064 .064 .064 .064 .064 .004 .004 .064 .064 .064 .064 .064 .064 .064 .064 .068 .074 .079 .083 .085 .089 .092 .096 .100
.064 .064 .064 .064 .064 .064 .004 .004 .064 .064 .064 .064 .064 .064 .064 .064 .068 .076 .082 .085 .087 .090 .093 .096 .100
.064 .004 .064 .004 .064 .004 .004 .004 .064 .064 .064 .064 .064 .064 .064 .064 .070 .076 .082 .086 .087 .090 .093 .097 .100
.064 .064 .064 .064 .064 .064 .064 .004 .064 .064 .064 .064 .064 .064 .064 .068 .073 .077 .082 .086 .088 .091 .094 .097 .100
.064 .004 .064 .004 .064 .004 .004 .004 .064 .004 .064 .064 .064 .067 .069 .072 .075 .079 .083 .087 .089 .092 .095 .097 .100
.064 .064 .064 .064 .064 .004 .065 .066 .064 .064 .064 .067 .069 .071 .073 .075 .078 .081 .086 .089 .091 .093 .095 .098 .100
.064 .064 .064 .004 .064 .004 .067 .068 .067 .068 .069 .071 .074 .075 .077 .079 .081 .083 .087 .091 .092 .095 .096 .098 .100
.064 .064 .064 .064 .064 .065 .069 .069 .070 .071 .073 .074 .076 .078 .079 .081 .083 .086 .089 .093 .094 .096 .098 .099 .101
.064 .064 .064 .064 .064 .065 .067 .070 .073 .075 .076 .077 .079 .081 .082 .083 .085 .088 .091 .095 .098 .098 .100 .100 .101
.064 .064 .064 .064 .064 .064 .067 .072 .076 .078 .079 .080 .081 .083 .084 .086 .087 .090 .092 .094 .096 .100 .101 .101 .104
.064 .064 .064 .004 .064 .004 .066 .074 .081 .083 .083 .083 .084 .085 .087 .088 .088 .091 .093 .095 .097 .099 .099 .103 .105
.064 .064 .064 .004 .064 .004 .064 .070 .091 .086 .085 .085 .086 .087 .089 .091 .092 .093 .094 .096 .098 .099 .100 .104 .103
.064 .064 .004 .004 .064 .004 .064 .075 .083 .085 .085 .086 .087 .089 .091 .094 .094 .094 .095 .096 .097 .098 .100 .101 .106
.064 .064 .064 .064 .064 .004 .067 .074 .080 .083 .085 .086 .088 .090 .092 .093 .094 .095 .095 .096 .097 .099 .103 .105 .107
.064 .064 .064 .064 .064 .004 .070 .075 .079 .083 .085 .087 .088 .090 .092 .093 .094 .095 .096 .096 .097 .100 .105 .106 .108
.064 .064 .064 .064 .064 .068 .072 .076 .080 .083 .085 .087 .089 .090 .092 .093 .094 .095 .096 .096 .098 .103 .105 .104 .107
.064 .064 .064 .066 .064 .071 .075 .079 .082 .084 .086 .088 .090 .091 .093 .095 .095 .096 .096 .096 .098 .101 .103 .103 .107
.064 .064 .064 .069 .072 .075 .078 .081 .084 .086 .087 .089 .090 .092 .094 .094 .094 .095 .096 .096 .098 .102 .104 .103 .107
.064 .064 .068 .072 .075 .078 .081 .084 .086 .088 .089 .090 .091 .093 .093 .093 .094 .095 .096 .096 .098 .104 .104 .102 .106
.064 .068 .072 .076 .076 .080 .083 .085 .090 .089 .089 .090 .091 .093 .093 .093 .094 .095 .095 .096 .098 .101 .103 .102 .106
.064 .071 .076 .080 .082 .083 .084 .085 .088 .089 .089 .090 .091 .093 .093 .093 .095 .095 .095 .096 .099 .100 .103 .101 .104
.069 .075 .080 .086 .085 .084 .085 .086 .088 .089 .089 .090 .091 .093 .093 .093 .095 .095 .096 .097 .099 .101 .100 .101 .104
.076 .079 .082 .084 .084 .084 .085 .086 .087 .088 .089 .090 .091 .092 .093 .093 .094 .095 .095 .096 .099 .101 .102 .102 .105
.081 .082 .082 .082 .083 .084 .085 .086 .087 .088 .088 .089 .091 .092 .093 .093 .094 .095 .096 .097 .099 .101 .102 .103 .107
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709       - L.A. WINDFIELD ANALYSIS                                          ANAL70 PAGE   30  23 MAR 73 18:49:01
   SETS=8
GRIDPRINT OF     PHI(      X,       Y) IN UNITS 1.0000+03

 .003 .011 .018 .025 .032 .039 .046 .053 .060 .067 .074 .081 .088 .095 .102 .111 .000 .000 .000 .000 .141 .149 .156 .162 .168

 .008 .015 .023 .030 .037 .045 .052 .059 .067 .074 .082 .089 .095 .102 .108 .112 .000 .000 .000 .000 .159 .162 .163 .165 .167

 .013 .021 .028 .035 .043 .050 .058 .066 .074 .082 .090 .097 .103 .110 .115 .119 .122 .000 .000 .000 .171 .171 .169 .168 .167

 .018 .026 .033 .040 .048 .056 .064 .073 .082 .090 .098 .105 .112 .118 .123 .128 .130 .000 .000 .000 .178 .175 .172 .170 .167

 .023 .031 .038 .046 .053 .061 .069 .079 .090 .099 .107 .114 .121 .127 .133 .138 .142 .149 .000 .000 .180 .177 .174 .171 .167

 .029 .036 .043 .051 .058 .065 .073 .085 .099 .109 .117 .124 .130 .137 .143 .147 .151 .156 .162 .000 .180 .177 .174 .171 .168

 .034 .041 .049 .056 .062 .068 .000 .000 .112 .121 .128 .134 .140 .145 .150 .154 .157 .160 .164 .176 .178 .176 .174 .171 .168

 .039 .047 .054 .062 .068 .074 .000 .000 .000 .134 .139 .144 .148 .152 .155 .159 .161 .164 .167 .175 .176 .175 .173 .171 .169

 .044 .052 .060 .068 .075 .000 .000 .000 .139 .143 .147 .150 .153 .156 .159 .162 .164 .166 .168 .173 .175 .174 .173 .171 .169

 .049 .056 .067 .076 .084 .000 .123 .137 .144 .148 .151 .153 .156 .159 .161 .164 .165 .167 .169 .172 .174 .173 .173 .171 .169

 .054 .064 .074 .084 .096 .113 .128 .140 .146 .150 .153 .156 .158 .161 .163 .165 .166 .168 .170 .171 .172 .173 .173 .172 .170

 .059 .069 .080 .091 .103 .117 .131 .142 .148 .151 .154 .157 .160 .162 .164 .165 .167 .168 .170 .171 .172 .173 .173 .172 .170

 .064 .075 .085 .097 .109 .121 .134 .144 .149 .152 .155 .158 .160 .163 .164 .166 .167 .168 .170 .171 .172 .173 .173 .172 .171

 .069 .080 .091 .102 .114 .125 .137 .146 .150 .153 .156 .159 .161 .163 .165 .166 .167 .168 .170 .171 .172 .173 .173 .172 .171

 .074 .085 .096 .107 .118 .129 .140 .148 .152 .154 .157 .159 .161 .163 .164 .166 .167 .169 .170 .171 .172 .173 .173 .172 .171

 .079 .090 .101 .112 .123 .133 .143 .149 .152 .155 .157 .159 .161 .163 .164 .166 .167 .169 .170 .171 .172 .173 .173 .173 .172

 .084 .095 .106 .117 .127 .137 .145 .150 .153 .155 .157 .159 .160 .162 .164 .166 .167 .169 .170 .170 .172 .173 .173 .173 .172

 .089 .100 .111 .122 .132 .140 .146 .150 .152 .155 .156 .158 .159 .161 .163 .166 .167 .168 .169 .170 .171 .173 .173 .173 .173

 .095 .106 .117 .127 .135 .141 .146 .149 .152 .154 .155 .157 .159 .160 .163 .166 .167 .168 .169 .170 .171 .172 .173 .173 .173

 .100 .111 .122 .130 .137 .142 .145 .148 .151 .152 .154 .156 .158 .159 .163 .165 .166 .168 .169 .170 .171 .172 .173 .173 .173

 .105 .116 .126 .132 .137 .141 .144 .147 .149 .151 .153 .154 .156 .159 .162 .164 .165 .167 .168 .169 .171 .172 .173 .174 .174

 .110 .120 .128 .133 .137 .140 .143 .145 .147 .149 .151 .153 .155 .158 .161 .162 .164 .166 .167 .169 .170 .172 .173 .174 .174

 .116 .123 .129 .133 .136 .139 .141 .144 .146 .148 .150 .152 .154 .157 .159 .161 .163 .165 .166 .168 .170 .171 .173 .174 .174

 .121 .126 .130 .132 .135 .137 .140 .142 .144 .146 .148 .150 .152 .155 .157 .159 .161 .163 .165 .166 .169 .170 .172 .173 .175

 .127 .128 .130 .132 .134 .136 .138 .140 .142 .144 .146 .149 .151 .153 .155 .157 .159 .161 .163 .165 .167 .169 .171 .173 .175
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721       L.A. WINDFIELD-ANALYSIS                                    ANAL70 PAGE   31  23 MAR 73 18:49:02
    SETS=0
GRIDPRINT OF      V(     X,      Y) IN UNITS 1.0000+01

 .433 .359 .353 .352 .350 .349 .347 .346 .347 .349 .351 .354 .357 .362 .366 .304 .000 .000 .000 .000 .275 .354 .324 .291 .262

 .390 .370 .363 .361 .363 .367 .371 .373 .372 .366 .359 .350 .339 .321 .279 .121 .000 .000 .000 .000 .217 .071 .095 .101 .110

 .375 .371 .368 .369 .374 .384 .397 .404 .400 .386 .367 .348 .326 .296 .248 .180 .009 .000 .000 .000 .148-.096-.072-.043-.029

 .372 .371 .369 .371 .374 .398 .427 .450 .440 .409 .376 .348 .321 .290 .245 .174 .087 .000 .000 .000-.040-.149-.150-.126-.130

 .374 .376 .368 .367 .373 .399 .463 .537 .500 .432 .380 .345 .319 .297 .262 .229 .217 .356 .000 .000-.085-.149-.170-.163-.180

 .374 .372 .366 .357 .349 .358 .498 .600 .579 .432 .367 .334 .313 .308 .243 .213 .201 .281 .359 .000-.092-.124-.160-.167-.185

 .382 .378 .367 .347 .315 .256 .000 .000 .628 .350 .325 .311 .279 .260 .155 .187 .174 .158 .305 .341-.046-.093-.135-.150-.170

 .397 .392 .378 .348 .298 .255 .000 .000 .000 .193 .263 .233 .177 .179 .143 .189 .116 .118 .246 .255-.024-.070-.099-.124-.155

 .422 .418 .405 .371 .309 .000 .000 .000 .231 .183 .171 .151 .130 .159 .148 .130 .094 .099 .147 .235-.017-.057-.044-.108-.136

 .455 .454 .450 .433 .329 .000 .781 .462 .247 .167 .137 .126 .147 .139 .114 .097 .088 .086 .091 .207-.017-.014-.038-.088-.114

 .489 .493 .504 .539 .676 .912 .638 .443 .238 .158 .140 .137 .134 .111 .096 .081 .074 .086 .086 .096 .017 .019-.034-.070-.098

 .517 .523 .540 .561 .660 .714 .695 .390 .261 .150 .149 .132 .119 .102 .086 .067 .070 .075 .066 .045 .053 .021-.037-.062-.088

 .535 .540 .554 .560 .615 .638 .643 .339 .155 .158 .142 .130 .115 .098 .079 .055 .062 .063 .063 .040 .099 .009-.035-.057-.081

 .543 .547 .555 .566 .562 .568 .577 .291 .154 .142 .132 .122 .109 .093 .074 .050 .061 .066 .056 .051 .074 .048-.027-.049-.074

 .540 .547 .550 .554 .557 .553 .520 .254 .145 .124 .117 .110 .100 .087 .074 .058 .072 .059 .051 .053 .056 .043-.017-.041-.067

 .545 .545 .544 .543 .538 .528 .406 .213 .138 .112 .102 .096 .090 .085 .080 .072 .077 .054 .048 .052 .057 .024-.006-.032-.058

 .545 .543 .540 .533 .520 .403 .293 .164 .127 .102 .090 .086 .063 .082 .094 .095 .070 .053 .048 .047 .060 .028 .003-.023-.049

 .546 .544 .538 .522 .488 .335 .232 .162 .117 .094 .080 .078 .081 .078 .125 .126 .058 .050 .047 .048 .068 .039 .012-.014-.040

 .553 .551 .543 .479 .360 .258 .194 .144 .108 .068 .072 .081 .078 .107 .159 .095 .053 .051 .049 .049 .084 .044 .019-.006-.031

 .564 .560 .505 .365 .275 .212 .168 .131 .100 .056 .072 .102 .071 .126 .127 .074 .066 .057 .053 .053 .110 .046 .025 .002-.022

 .611 .545 .397 .280 .215 .177 .148 .121 .094 .069 .081 .105 .085 .203 .108 .071 .088 .062 .058 .059 .119 .048 .031 .011-.011

 .608 .444 .313 .213 .172 .151 .133 .116 .099 .095 .088 .099 .105 .224 .099 .073 .124 .061 .063 .061 .161 .050 .040 .028 .004

 .380 .347 .232 .158 .147 .134 .124 .113 .103 .102 .092 .093 .117 .155 .111 .074 .110 .077 .065 .071 .168 .060 .055 .042 .024

 .240 .232 .145 .123 .124 .118 .112 .111 .106 .108 .094 .097 .123 .126 .112 .088 .096 .101 .084 .082 .100 .080 .076 .068 .053

 .127 .077 .085 .098 .100 .102 .103 .100 .106 .104 .107 .108 .105 .097 .101 .106 .101 .103 .106 .107 .080 .100 .100 .099 .095
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-344 - L.A. SIMPLIFIED ANALYSIS                                        ANAL70 PAGE   32  23 MAR 73 10:49:03
   SETS=0
GRIDPRINT OF     U(     X,     Y) IN UNITS 1.0000+02

.022 .025 .025 .026 .027 .029 .031 .033 .036 .038 .039 .039 .038 .034 .023-.036 .000 .000 .000 .000 .135 .076 .042 .017-.004

.025 .025 .025 .026 .027 .029 .031 .033 .036 .038 .040 .040 .039 .036 .032 .034 .000 .000 .000 .000 .068 .057 .034 .015-.002

.020 .025 .020 .026 .027 .028 .030 .033 .037 .040 .041 .041 .041 .040 .038 .036 .025 .000 .000 .000 .044 .032 .022 .011-.001

.020 .026 .020 .026 .020 .026 .028 .033 .038 .042 .044 .044 .044 .044 .044 .046 .052 .000 .000 .000 .020 .015 .012 .007 .001

.020 .026 .026 .025 .024 .023 .024 .031 .042 .047 .047 .047 .046 .047 .049 .052 .058 .036 .000 .000 .001 .004 .005 .003 .001

.020 .020 .020 .026 .023 .018 .012 .025 .053 .055 .052 .050 .046 .047 .046 .039 .036 .027 .018 .000-.006-.003-.000 .001 .002

.020 .027 .027 .027 .020 .022 .000 .000 .077 .065 .055 .051 .048 .039 .028 .028 .025 .019 .011 .005-.005-.005-.002 .000 .003

.025 .027 .029 .031 .031 .041 .000 .000 .000 .058 .052 .040 .029 .023 .022 .022 .017 .013 .009-.013-.008-.006-.003 .000 .003

.025 .028 .031 .035 .034 .000 .000 .000 .020 .032 .028 .022 .019 .019 .017 .010 .010 .005 .005-.008-.006-.006-.001 .001 .002

.025 .029 .033 .041 .057 .000 .046 .014 .016 .016 .015 .014 .015 .013 .009 .007 .005 .004 .004 .001-.005-.003-.001 .000 .002

.025 .028 .033 .039 .046 .015 .015 .013 .010 .008 .009 .010 .009 .007 .006 .004 .003 .002 .002-.004-.006-.001-.000 .001 .002

.025 .028 .033 .032 .038 .021 .015 .012 .007 .005 .006 .005 .005 .004 .004 .003 .002 .001-.001-.002-.002 .002 .002 .001 .002

.025 .027 .024 .027 .025 .020 .014 .003 .004 .004 .004 .003 .003-.002 .002 .001 .000 .001 .000-.000 .002 .001 .000 .001 .002

.020 .026 .020 .025 .023 .020 .015 .010 .007 .005 .004 .002 .001 .001 .000-.000 .001 .002 .000 .001 .000-.001 .000 .001 .002

.020 .026 .025 .024 .023 .020 .016 .003 .005 .004 .003 .001 .000-.001-.001 .000 .002 .001-.000-.000-.000-.000 .000 .001 .002

.020 .026 .025 .024 .023 .021 .013 .005 .003 .002 .001-.001-.002-.002-.002-.000 .000-.000-.000-.000-.001-.001 .000 .001 .002

.020 .020 .026 .025 .024 .019 .007 .002 .000-.001-.002-.003-.003-.004-.003-.001-.000-.001-.001-.001-.000-.001 .000 .001 .002

.020 .026 .020 .026 .022 .009 .002-.001-.002-.003-.004-.005-.005-.005-.002 .002 .000-.001-.001-.001-.001-.000 .000 .001 .002

.025 .026 .027 .023 .011 .003-.001-.004-.005-.005-.006-.006-.005-.003 .000-.003-.003-.002-.002-.001-.001-.000 .000 .001 .002

.020 .027 .025 .012 .004-.001-.004-.006-.007-.007-.007-.005-.005-.004-.002-.005-.004-.003-.002-.002-.001-.000 .000 .001 .002

.027 .025 .015 .006 .002-.004-.007-.008-.008-.006-.007-.007-.007-.004-.006-.006-.006-.004-.003-.003-.002-.001-.000 .001 .002

.020 .016 .007 .001-.004-.006-.008-.009-.008-.008-.007-.007-.007-.006-.007-.007-.006-.005-.004-.004-.002-.002-.001 .000 .002

.027 .013 .004-.003-.005-.007-.008-.008-.009-.008-.006-.007-.006-.007-.009-.008-.008-.008-.006-.006-.004-.004-.002-.001 .002

.020 .015 .004-.002-.005-.007-.008-.009-.009-.009-.008-.007-.007-.009-.011-.010-.009-.010-.008-.006-.006-.006-.004-.002 .002

.030 .005-.003-.003-.004-.006-.007-.007-.009-.009-.009-.006-.006-.012-.015-.015-.012-.011-.011-.006-.013-.008-.006-.003 .001

/1       T OF 9 [illegible] 73 [illegible]                          ) 1 PM
/6       [illegible] 45 TO 40[illegible]                            ) 1 PM
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 218         L.A. WIN FIELD ANALYSIS                                          ANALTO PAGE   33  23 MAR 73 18:49:37
    SETS=9
GRIDPRINT OF    T(    X,     Y) IN UNITS 1.0000+03

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .069 .075 .078 .082 .085 .089 .093 .097 .102

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .069 .074 .079 .083 .086 .089 .093 .097 .101

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .058 .076 .082 .085 .087 .090 .094 .097 .101

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .070 .076 .082 .086 .088 .091 .094 .098 .101

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .068 .073 .077 .083 .087 .089 .092 .095 .098 .101

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .066 .069 .072 .075 .079 .083 .088 .090 .093 .095 .098 .101

.064 .064 .064 .064 .064 .064 .065 .066 .064 .064 .064 .067 .069 .071 .072 .075 .078 .081 .086 .089 .091 .094 .096 .099 .101

.064 .064 .064 .064 .064 .064 .067 .066 .067 .068 .069 .071 .073 .074 .076 .078 .080 .083 .087 .091 .093 .095 .097 .099 .101

.064 .064 .064 .064 .064 .065 .069 .069 .069 .071 .072 .074 .075 .077 .079 .080 .083 .085 .089 .093 .095 .097 .099 .100 .102

.064 .064 .064 .064 .064 .065 .067 .070 .072 .074 .075 .076 .078 .080 .081 .082 .084 .087 .090 .096 .099 .098 .101 .101 .102

.064 .064 .064 .064 .064 .064 .067 .072 .075 .077 .078 .079 .080 .082 .083 .084 .086 .089 .092 .094 .097 .100 .101 .102 .105

.064 .064 .064 .064 .064 .064 .066 .074 .080 .081 .082 .082 .083 .084 .085 .086 .086 .090 .092 .095 .097 .099 .100 .104 .106

.064 .064 .064 .064 .064 .064 .064 .075 .089 .085 .084 .084 .085 .086 .088 .089 .090 .092 .094 .096 .098 .100 .101 .104 .104

.064 .064 .064 .064 .064 .064 .064 .074 .082 .084 .085 .085 .086 .088 .090 .092 .092 .094 .095 .096 .098 .099 .101 .102 .107

.064 .064 .064 .064 .064 .064 .067 .074 .080 .083 .085 .086 .087 .089 .091 .092 .094 .095 .095 .097 .098 .099 .103 .106 .108

.064 .064 .064 .064 .064 .064 .070 .075 .079 .083 .085 .087 .088 .090 .092 .093 .095 .095 .096 .097 .098 .101 .105 .107 .109

.064 .064 .064 .064 .064 .068 .073 .077 .080 .083 .086 .088 .089 .091 .092 .094 .095 .096 .097 .097 .098 .104 .106 .105 .108

.064 .064 .064 .066 .069 .072 .075 .079 .082 .085 .087 .089 .091 .092 .094 .096 .096 .098 .097 .098 .099 .102 .104 .104 .108

.064 .064 .064 .069 .072 .075 .078 .082 .085 .087 .089 .091 .092 .094 .095 .096 .096 .097 .097 .098 .099 .103 .105 .104 .108

.064 .064 .068 .072 .075 .078 .081 .085 .088 .089 .090 .093 .094 .095 .095 .095 .096 .096 .097 .098 .099 .105 .105 .103 .107

.064 .068 .072 .076 .079 .081 .084 .087 .092 .091 .091 .092 .093 .095 .095 .095 .096 .096 .097 .097 .099 .102 .104 .103 .107

.064 .071 .076 .081 .082 .083 .085 .088 .090 .091 .091 .092 .093 .095 .094 .095 .096 .096 .097 .097 .100 .101 .104 .102 .105

.069 .075 .080 .088 .085 .085 .086 .087 .089 .090 .090 .091 .092 .094 .094 .094 .096 .096 .097 .098 .100 .102 .101 .102 .105

.070 .079 .082 .084 .085 .085 .086 .087 .088 .089 .089 .090 .092 .093 .094 .094 .094 .096 .096 .097 .100 .102 .103 .103 .106

.081 .082 .082 .083 .083 .084 .085 .087 .087 .088 .089 .090 .092 .092 .093 .094 .094 .095 .096 .098 .100 .102 .103 .104 .108
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-709       *-L.A. AIRFIELD ANALYSIS                                             ANAL70 PAGE    34  23 MAR 73 18:50:00
   SETS=9
GRIDPRINT OF    PHI(     X,     Y) IN UNITS 1.0000+03

.003 .010 .017 .023 .030 .036 .043 .050 .056 .063 .069 .076 .082 .089 .096 .104 .000 .000 .000 .000 .132 .140 .146 .152 .158

.007 .015 .021 .028 .035 .042 .049 .056 .063 .070 .076 .083 .090 .096 .102 .106 .000 .000 .000 .000 .150 .152 .153 .155 .157

.012 .019 .026 .033 .040 .047 .054 .062 .070 .077 .084 .091 .097 .103 .108 .112 .115 .000 .000 .000 .161 .160 .159 .158 .157

.017 .024 .031 .038 .045 .052 .060 .068 .076 .084 .092 .099 .105 .111 .116 .120 .122 .000 .000 .000 .167 .165 .162 .159 .157

.022 .029 .036 .043 .050 .057 .065 .074 .084 .093 .100 .107 .114 .120 .125 .130 .134 .141 .000 .000 .169 .167 .163 .160 .157

.027 .034 .041 .047 .054 .061 .068 .079 .093 .102 .109 .117 .123 .129 .135 .139 .143 .148 .153 .000 .169 .167 .164 .161 .157

.032 .039 .046 .052 .058 .064 .000 .000 .105 .113 .119 .127 .132 .137 .142 .145 .149 .152 .155 .166 .168 .166 .164 .161 .158

.036 .044 .051 .058 .064 .069 .000 .000 .000 .126 .130 .136 .140 .143 .147 .151 .153 .155 .158 .165 .166 .165 .163 .161 .158

.041 .049 .057 .064 .070 .000 .000 .000 .131 .135 .138 .142 .145 .148 .151 .154 .156 .157 .160 .163 .165 .164 .163 .161 .159

.046 .054 .063 .071 .078 .000 .115 .129 .136 .139 .142 .145 .148 .151 .153 .155 .157 .159 .160 .163 .164 .164 .163 .161 .159

.050 .060 .069 .079 .090 .106 .120 .131 .138 .142 .145 .147 .150 .153 .155 .156 .158 .159 .161 .163 .163 .163 .163 .161 .160

.055 .065 .075 .085 .097 .110 .123 .134 .140 .143 .146 .149 .152 .154 .156 .157 .158 .160 .161 .162 .163 .163 .163 .162 .160

.060 .070 .080 .091 .102 .114 .126 .136 .141 .144 .147 .150 .152 .154 .156 .157 .159 .160 .161 .162 .163 .164 .163 .162 .160

.065 .075 .086 .096 .107 .118 .129 .138 .142 .145 .148 .151 .153 .155 .156 .158 .159 .160 .161 .162 .163 .164 .163 .162 .161

.070 .080 .090 .101 .112 .122 .133 .140 .144 .146 .149 .151 .153 .155 .156 .158 .159 .160 .161 .162 .163 .163 .163 .162 .161

.074 .085 .095 .106 .116 .126 .135 .141 .145 .147 .149 .151 .153 .155 .156 .158 .159 .160 .161 .162 .163 .163 .163 .163 .161

.079 .090 .100 .110 .121 .130 .137 .142 .145 .147 .149 .151 .152 .154 .156 .157 .159 .160 .161 .162 .162 .163 .163 .163 .162

.084 .095 .105 .115 .125 .133 .138 .142 .145 .147 .148 .150 .152 .153 .155 .157 .159 .160 .160 .161 .162 .163 .163 .163 .162

.089 .099 .110 .120 .128 .134 .139 .141 .144 .146 .147 .149 .150 .152 .155 .157 .158 .159 .160 .161 .162 .163 .163 .163 .163

.094 .104 .115 .123 .129 .134 .138 .140 .143 .144 .146 .148 .149 .151 .154 .156 .157 .158 .159 .160 .162 .163 .163 .163 .163

.098 .109 .118 .125 .128 .133 .136 .139 .141 .143 .145 .146 .146 .150 .153 .155 .156 .158 .159 .160 .161 .162 .163 .163 .163

.103 .113 .120 .125 .129 .132 .135 .137 .139 .141 .143 .145 .146 .149 .152 .153 .155 .157 .158 .159 .161 .162 .163 .163 .164

.109 .116 .121 .125 .128 .131 .133 .135 .137 .139 .141 .143 .145 .148 .150 .152 .153 .155 .157 .158 .160 .161 .162 .163 .164

.114 .118 .122 .124 .127 .129 .131 .133 .136 .138 .139 .141 .143 .146 .148 .150 .152 .153 .155 .157 .159 .160 .162 .163 .164

.119 .120 .122 .124 .126 .128 .130 .132 .134 .136 .138 .140 .142 .144 .145 .147 .149 .151 .153 .155 .157 .159 .161 .163 .165
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GRIDPRINT OF        V(      X,      Y) IN UNITS 1.0000+01

 .400 .337 .331 .330 .329 .327 .326 .325 .325 .327 .329 .331 .334 .339 .343 .284 .000 .000 .000 .000 .261 .333 .304 .273 .246

 .360 .347 .340 .339 .340 .344 .348 .350 .349 .345 .338 .330 .320 .303 .264 .118 .000 .000 .000 .000 .200 .069 .091 .097 .085

 .351 .347 .344 .345 .350 .360 .372 .380 .377 .364 .348 .330 .310 .282 .237 .174 .010 .000 .000 .000 .135-.092-.068-.041-.040

 .347 .346 .345 .346 .354 .372 .400 .422 .413 .385 .358 .334 .308 .278 .236 .170 .011 .000 .000 .000-.043-.144-.144-.123-.122

 .340 .345,.343 .342 .348 .373 .433 .564 .469 .406 .365 .338 .309 .287 .254 .225 .211 .333 .000 .000-.091-.146-.166-.161-.159

 .348 .346 .340 .352 .324 .332 .466 .809 .543 .399 .342 .342 .302 .297 .242 .210 .194 .263 .330 .000-.095-.126-.159-.167-.167

 .355 .351 .341 .321 .290 .244 .000 .000 .592 .318 .245 .234 .260 .258 .155 .185 .167 .147 .279 .309-.054-.099-.138-.153-.159

 .370 .365 .351 .321 .272 .230 .000 .000 .000 .184 .277 .226 .175 .176 .140 .184 .110 .109 .225 .227-.034-.078-.108-.130-.149

 .394 .389 .376 .343 .281 .000 .000 .000-.226 .181 .179 .157 .136 .157 .145 .126 .089 .092 .132 .205-.025-.065-.072-.111-.134

 .425 .424 .420 .403 .302 .000 .723 .604 .221 .162 .138 .128 .148 .138 .112 .095 .085 .081 .080 .178-.022-.036-.061-.093-.118

 .450 .462 .473 .505 .638 .857 .648 .450 .235 .152 .140 .137 .133 .110 .095 .080 .074 .081 .075 .079 .003-.013-.050-.080-.106

 .487 .493 .509 .547 .621 .674 .656 .308 .204 .151 .147 .129 .116 .100 .085 .067 .072 .071 .057 .034 .037-.018-.045-.071-.098

 .500 .511 .524 .549 .582 .604 .608 .330 .160 .159 .139 .125 .111 .095 .078 .057 .063 .059 .054 .031 .087-.022-.041-.065-.090

 .510 .519 .527 .539 .553 .559 .549 .289 .157 .142 .128 .118 .105 .090 .073 .052 .060 .060 .047 .039 .053-.016-.035-.058-.083

 .523 .521 .525 .529 .531 .529 .499 .251 .146 .123 .114 .105 .095 .084 .072 .056 .068 .052 .042 .040 .037-.005-.026-.050-.076

 .521 .521 .521 .520 .516 .507 .390 .210 .137 .111 .100 .092 .086 .081 .076 .067 .070 .046 .038 .040 .044 .009-.016-.041-.068

 .522 .521 .518 .513 .507 .443 .283 .180 .126 .101 .088 .082 .079 .077 .087 .087 .063 .045 .039 .036 .046 .021-.006-.032-.059

 .525 .523 .518 .503 .468 .321 .224 .159 .116 .093 .079 .075 .076 .073 .114 .113 .052 .042 .039 .037 .050 .029 .003-.023-.050

 .532 .530 .524 .459 .344 .248 .138 .141 .106 .087 .072 .077 .072 .097 .141-.088-.049 .045 .042 .040 .358 .034 .010-.015-.040

 .542 .539 .484 .350 .265 .205 .163 .120 .097 .084 .072 .095 .066 .114 .116 .071 .062 .053 .048 .047 .061 .040 .018-.005-.030

 .587 .521 .360 .269 .266 .172 .144 .116 .091 .067 .079 .099 .080 .177 .101 .069 .083 .060 .056 .056 .070 .045 .027 .006-.017

 .580 .424 .360 .265 .167 .146 .129 .111 .075 .092 .085 .094 .098 .195 .094 .071 .115 .061 .064 .066 .065 .052 .039 .020-.002

 .370 .330 .221 .152 .141 .129 .118 .100 .096 .098 .088 .089 .109 .141 .105 .072 .103 .076 .068 .078 .066 .062 .053 .038 .019

 .237 .221 .130 .117 .118 .113 .107 .100 .100 .103 .090 .093 .115 .117 .105 .084 .091 .096 .082 .082 .068 .076 .072 .063 .049

 .120 .072 .061 .043 .094 .096 .097 .100 .100 .100 .101 .102 .099 .093 .095 .100 .095 .097 .099 .098 .093 .096 .095 .094 .090
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744       L.A. WINDFIELD ANALYSIS                                    ANAL70 PAGE   36  23 MAR 73 14:50:02
   SETS=9
GRIDPRINT OF       U(     X,      Y) IN UNITS 1.0000+02

 .021 .021 .023 .024 .025 .027 .029 .031 .033 .035 .037 .037 .036 .033 .023-.033 .000 .000 .000 .000 .125 .071 .040 .017-.003

 .024 .023 .024 .024 .025 .027 .029 .031 .034 .036 .037 .038 .037 .035 .031 .033 .000 .000 .000 .000 .065 .054 .032 .014-.002

 .024 .024 .024 .024 .025 .026 .028 .031 .034 .037 .038 .039 .039 .038 .037 .035 .024 .000 .000 .000 .043 .031 .021 .010-.001

 .024 .024 .024 .024 .024 .024 .026 .030 .036 .039 .041 .041 .041 .042 .042 .044 .050 .000 .000 .000 .020 .015 .011 .006 .000

 .024 .024 .024 .024 .022 .021 .022 .029 .039 .043 .043 .044 .044 .045 .047 .050 .056 .035 .000 .000 .002 .004 .005 .003 .001

 .024 .024 .024 .024 .022 .016 .011 .023 .050 .050 .045 .045 .046 .045 .044 .038 .035 .026 .018 .000-.005-.002 .000 .002 .002

 .024 .025 .026 .025 .024 .020 .000 .000 .073 .063 .064 .060 .047 .039 .028 .028 .025 .019 .011 .005-.007-.004-.002 .001 .002

 .024 .026 .027 .029 .029 .038 .000 .000 .000 .056 .051 .037 .028 .023 .021 .022 .016 .013 .010-.012-.007-.005-.002 .001 .002

 .023 .026 .030 .033 .037 .000 .040 .000 .030 .034 .028 .022 .018 .010 .017 .010 .010 .009 .005-.006-.005-.004-.001 .000 .002

 .023 .027 .031 .039 .055 .050 .046 .011 .015 .017 .015 .014 .015 .013 .009 .007 .005 .005 .004 .002-.004-.003-.001 .001 .002

 .023 .027 .031 .037 .046 .015 .016 .013 .010 .009 .009 .010 .009 .007 .006 .004 .003 .003 .002-.003-.005-.001 .000 .001 .002

 .024 .026 .028 .033 .029 .021 .015 .012 .006 .006 .006 .006 .005 .004 .004 .003 .002 .001-.001-.001-.001 .001 .001 .001 .002

 .024 .025 .026 .026 .024 .020 .014 .009 .004 .005 .004 .004 .003 .003 .002 .001 .000 .001 .000-.000 .001-.000 .001 .001 .002

 .024 .025 .025 .024 .022 .019 .015 .010 .008 .006 .004 .003 .002 .001 .000 .000 .001 .001-.000 .000-.001-.001 .000 .001 .002

 .024 .024 .024 .023 .022 .020 .016 .008 .005 .004 .003 .001 .000-.000-.001-.000 .001-.000-.001-.001-.001-.001 .000 .001 .002

 .024 .024 .024 .023 .022 .021 .013 .005 .003 .002 .001-.001-.002-.002-.002-.001-.000-.001-.001-.001-.001-.001 .000 .001 .002

 .024 .024 .024 .024 .023 .018 .006 .002 .000-.001-.002-.003-.004-.004-.004-.002-.001-.001-.001-.002-.002-.001 .000 .001 .002

 .024 .024 .025 .024 .020 .009 .002-.001-.003-.004-.004-.005-.005-.005-.003 .001-.001-.002-.002-.002-.001-.001 .000 .001 .002

 .024 .025 .026 .022 .010 .002-.002-.004-.005-.006-.006-.006-.005-.004-.001-.004-.004-.003-.002-.002-.001-.001 .000 .001 .002

 .024 .025 .021 .011 .003-.002-.005-.006-.007-.008-.007-.006-.006-.005-.004-.006-.005-.004-.003-.002-.001-.001-.000 .001 .002

 .026 .023 .014 .005-.001-.006-.007-.008-.009-.009-.008-.008-.007-.005-.007-.007-.006-.004-.004-.003-.002-.001-.001 .000 .002

 .027 .015 .007 .000-.004-.007-.009-.009-.009-.009-.006-.008-.006-.007-.008-.007-.007-.006-.005-.004-.003-.002-.001 .000 .002

 .025 .012 .003-.003-.006-.007-.008-.009-.009-.009-.008-.006-.007-.008-.009-.008-.009-.009-.007-.006-.004-.004-.002-.001 .002

 .024 .014 .003-.002-.005-.007-.009-.010-.010-.009-.009-.008-.008-.010-.011-.011-.010-.010-.009-.008-.007-.006-.004-.001 .002

 .026 .003-.003-.005-.006-.007-.008-.009-.009-.010-.010-.008-.009-.013-.015-.015-.013-.012-.012-.009-.01[illegible]-.009-.006-.003 .001

 71        T OF 9 PLACES:100 73 80 97 86 97 93 92 87                    1 2 PM
 70        [illegible]                                                  1 2 PM
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218      M.L.A. WINDFIELD ANALYSIS                                             ANAL70 PAGE   37  23 MA. 73 18:50:33
  SETS=10
GRIDPRINT OF      T(     X,     Y) IN UNITS 1.000D+03

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .069 .075 .078 .082 .085 .089 .093 .097 .102
.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .069 .074 .079 .083 .086 .089 .093 .097 .101
.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .068 .076 .082 .085 .087 .090 .094 .097 .101
.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .070 .076 .082 .086 .088 .091 .094 .098 .101
.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .068 .073 .077 .082 .087 .089 .092 .095 .098 .101
.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .066 .069 .072 .075 .079 .083 .088 .090 .093 .095 .098 .101
.064 .064 .064 .064 .064 .064 .065 .066 .064 .064 .064 .067 .069 .071 .072 .075 .078 .081 .086 .089 .091 .094 .096 .099 .101
.064 .064 .064 .064 .064 .064 .067 .068 .067 .067 .069 .070 .073 .074 .076 .078 .080 .083 .087 .091 .093 .095 .097 .099 .101
.064 .064 .064 .064 .064 .065 .068 .068 .069 .070 .072 .073 .075 .077 .078 .080 .082 .085 .089 .093 .095 .097 .099 .100 .102
.064 .064 .064 .064 .064 .065 .067 .069 .071 .073 .074 .076 .078 .079 .080 .082 .084 .087 .090 .096 .099 .098 .101 .101 .102
.064 .064 .064 .064 .064 .064 .067 .071 .074 .076 .077 .078 .080 .081 .082 .084 .086 .088 .091 .094 .097 .100 .101 .102 .105
.064 .064 .064 .064 .064 .064 .066 .073 .078 .080 .080 .081 .082 .083 .084 .086 .086 .090 .092 .095 .097 .099 .100 .104 .106
.064 .064 .064 .064 .064 .064 .064 .074 .086 .083 .082 .082 .083 .085 .086 .088 .089 .091 .093 .095 .098 .100 .100 .104 .104
.064 .064 .064 .064 .064 .064 .064 .073 .080 .082 .083 .084 .085 .086 .088 .090 .091 .093 .094 .096 .097 .099 .101 .102 .107
.064 .064 .064 .064 .064 .064 .067 .073 .078 .082 .083 .085 .086 .088 .089 .091 .092 .094 .095 .096 .097 .099 .103 .106 .108
.064 .064 .064 .064 .064 .064 .070 .074 .079 .082 .084 .086 .087 .089 .090 .092 .093 .094 .095 .097 .098 .100 .105 .107 .109
.064 .064 .064 .064 .064 .068 .072 .076 .080 .083 .085 .087 .088 .090 .091 .093 .094 .095 .096 .097 .098 .104 .106 .105 .108
.064 .064 .064 .066 .069 .072 .075 .079 .082 .084 .086 .088 .090 .091 .093 .095 .095 .097 .097 .097 .098 .101 .104 .104 .108
.064 .064 .064 .069 .072 .075 .078 .081 .084 .086 .088 .090 .091 .093 .094 .095 .095 .096 .097 .097 .098 .103 .105 .104 .108
.064 .064 .068 .072 .075 .078 .081 .084 .087 .089 .090 .092 .093 .094 .094 .094 .095 .096 .096 .097 .099 .104 .105 .103 .107
.064 .068 .072 .076 .078 .081 .083 .087 .092 .091 .091 .092 .093 .095 .094 .094 .095 .096 .096 .097 .099 .101 .104 .103 .107
.064 .071 .076 .080 .082 .083 .085 .087 .090 .090 .091 .092 .092 .095 .094 .094 .096 .095 .096 .097 .100 .101 .103 .102 .105
.069 .075 .080 .087 .084 .084 .086 .087 .089 .090 .090 .091 .092 .094 .094 .094 .095 .096 .096 .097 .100 .102 .101 .102 .105
.070 .079 .081 .084 .084 .085 .085 .087 .088 .089 .089 .090 .092 .093 .093 .094 .094 .096 .096 .097 .100 .102 .103 .103 .106
.081 .082 .082 .083 .083 .084 .085 .087 .087 .088 .089 .090 .092 .092 .093 .094 .094 .095 .096 .098 .100 .102 .103 .104 .108
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709          L.A. WINDFIELD ANALYSIS                                              ANAL70 PAGE    38  23 MAR 73 18:50:56
   SETS=10

GRIDPRINT OF    PHI(      Y,      Y) IN UNITS 1.0000+03

 .003 .011 .018 .025 .032 .039 .046 .053 .060 .067 .074 .081 .089 .096 .103 .112 .000 .000 .000 .000 .142 .150 .158 .164 .170

 .008 .016 .023 .030 .037 .045 .052 .060 .067 .075 .082 .089 .096 .103 .109 .113 .000 .000 .000 .000 .161 .163 .165 .167 .169

 .013 .021 .028 .035 .043 .050 .058 .066 .074 .082 .090 .097 .104 .111 .116 .121 .123 .000 .000 .000 .173 .173 .171 .170 .169

 .018 .026 .033 .040 .048 .056 .064 .072 .081 .090 .098 .106 .113 .119 .125 .129 .131 .000 .000 .000 .180 .177 .174 .172 .169

 .024 .031 .038 .045 .053 .060 .069 .079 .089 .098 .107 .115 .122 .128 .134 .139 .144 .151 .000 .000 .182 .179 .176 .173 .169

 .029 .036 .043 .050 .057 .064 .072 .084 .098 .108 .116 .124 .131 .138 .144 .149 .153 .158 .164 .000 .182 .179 .176 .173 .170

 .034 .041 .049 .056 .062 .068 .000 .000 .111 .118 .126 .136 .142 .147 .152 .156 .159 .163 .167 .178 .180 .179 .176 .173 .170

 .039 .047 .054 .061 .066 .073 .000 .000 .000 .133 .141 .146 .150 .153 .157 .161 .164 .166 .169 .177 .179 .178 .176 .173 .171

 .044 .052 .060 .068 .074 .000 .000 .000 .136 .143 .148 .152 .155 .158 .161 .165 .167 .169 .171 .175 .177 .176 .175 .173 .171

 .049 .056 .067 .076 .083 .000 .122 .136 .144 .148 .152 .155 .158 .161 .164 .166 .168 .170 .172 .175 .176 .176 .175 .173 .171

 .054 .064 .074 .084 .095 .113 .127 .139 .147 .151 .154 .158 .161 .163 .165 .167 .169 .171 .173 .174 .175 .175 .175 .174 .172

 .059 .070 .080 .091 .103 .117 .131 .142 .149 .153 .156 .159 .162 .164 .166 .168 .170 .171 .173 .174 .174 .175 .175 .174 .172

 .064 .075 .086 .097 .109 .121 .134 .145 .150 .154 .157 .160 .163 .165 .167 .169 .170 .171 .173 .174 .174 .176 .175 .174 .173

 .070 .080 .091 .103 .114 .126 .137 .147 .152 .155 .158 .161 .163 .166 .167 .169 .170 .172 .173 .174 .175 .176 .175 .174 .173

 .075 .086 .097 .108 .119 .130 .141 .149 .153 .156 .159 .162 .164 .166 .167 .169 .170 .172 .173 .174 .175 .175 .175 .175 .173

 .080 .091 .102 .113 .124 .134 .144 .151 .154 .157 .160 .162 .164 .165 .167 .169 .170 .172 .173 .173 .174 .175 .175 .175 .174

 .085 .096 .107 .118 .129 .139 .147 .152 .155 .157 .159 .161 .163 .165 .167 .169 .170 .171 .172 .173 .174 .175 .175 .175 .174

 .090 .101 .112 .123 .133 .142 .148 .152 .155 .157 .159 .160 .162 .164 .166 .168 .170 .171 .172 .173 .174 .175 .175 .175 .175

 .095 .107 .118 .128 .137 .143 .148 .151 .154 .156 .158 .159 .161 .163 .166 .168 .170 .171 .172 .173 .174 .175 .175 .175 .175

 .101 .112 .123 .132 .138 .143 .147 .150 .153 .155 .156 .158 .160 .162 .165 .167 .169 .170 .171 .172 .173 .175 .175 .175 .175

 .106 .117 .127 .134 .139 .143 .146 .149 .151 .153 .155 .157 .158 .161 .164 .166 .168 .169 .170 .172 .173 .174 .175 .176 .176

 .111 .121 .129 .134 .138 .142 .145 .147 .149 .151 .153 .155 .157 .160 .163 .164 .166 .168 .170 .171 .173 .174 .175 .176 .176

 .117 .124 .130 .134 .137 .140 .143 .145 .147 .150 .152 .153 .155 .158 .161 .163 .165 .167 .168 .170 .172 .173 .175 .176 .176

 .122 .127 .131 .134 .136 .139 .141 .143 .146 .149 .150 .152 .154 .156 .159 .161 .163 .165 .167 .169 .171 .172 .174 .175 .177

 .126 .130 .131 .133 .135 .137 .139 .142 .144 .146 .148 .150 .152 .154 .156 .158 .161 .163 .165 .167 .169 .171 .173 .175 .177
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321      L.A. WINDFIELD ANALYSIS                                                  ANAL70 PAGE   39  23 MAR 73 18:50:57
  SETS=10

GRIDPRINT OF      V(      X,      Y) IN UNITS 1.0000+01

 .430 .363 .357 .356 .354 .363 .351 .350 .350 .352 .353 .356 .360 .364 .369 .306 .080 .000 .000 .000 .281 .362 .332 .301 .273

 .392 .372 .364 .363 .364 .369 .373 .376 .375 .371 .364 .356 .345 .326 .283 .124 .000 .000 .000 .000 .218 .078 .103 .111 .100

 .375 .370 .367 .368 .373 .383 .397 .406 .404 .392 .376 .358 .335 .304 .254 .185 .012 .000 .000 .000 .151-.094-.067-.037-.035

 .369 .367 .366 .367 .376 .395 .425 .449 .442 .417 .390 .364 .334 .300 .253 .181 .011 .000 .000 .000-.040-.149-.149-.125-.123

 .360 .365 .362 .361 .367 .393 .457 .533 .498 .439 .405 .373 .336 .309 .272 .240 .225 .361 .000 .000-.090-.150-.171-.166-.161

 .360 .364 .358 .348 .340 .348 .499 .853 .567 .427 .408 .381 .326 .318 .259 .226 .209 .285 .360 .000-.094-.127-.164-.172-.168

 .372 .368 .357 .335 .301 .251 .000 .000 .600 .229 .479 .247 .272 .275 .167 .201 .181 .160 .306 .343-.050-.098-.141-.155-.160

 .387 .381 .366 .334 .281 .234 .000 .000 .000 .215 .422 .200 .173 .186 .150 .200 .119 .120 .247 .254-.030-.076-.108-.130-.149

 .411 .406 .392 .356 .289 .000 .000 .000 .249 .233 .232 .165 .141 .168 .157 .138 .097 .101 .146 .230-.021-.063-.068-.109-.132

 .444 .443 .438 .419 .310 .000 .754 .650 .259 .199 .167 .144 .161 .150 .122 .103 .093 .088 .089 .200-.018-.031-.057-.089-.116

 .479 .483 .494 .527 .662 .837 .671 .436 .270 .180 .164 .155 .147 .120 .104 .088 .080 .089 .084 .090 .010-.005-.044-.075-.103

 .509 .515 .532 .572 .649 .703 .682 .431 .235 .176 .169 .145 .128 .110 .093 .074 .076 .078 .063 .038 .046-.009-.040-.067-.094

 .530 .535 .548 .574 .608 .631 .633 .377 .189 .183 .157 .140 .122 .104 .086 .064 .068 .064 .059 .033 .090-.022-.039-.062-.087

 .541 .544 .552 .565 .579 .585 .574 .326 .182 .162 .144 .130 .115 .098 .081 .059 .066 .066 .051 .043 .064 .015-.034-.056-.080

 .545 .547 .550 .555 .558 .555 .531 .283 .167 .139 .126 .116 .104 .092 .080 .064 .076 .057 .046 .045 .047 .013-.024-.048-.073

 .547 .547 .547 .546 .542 .534 .425 .234 .154 .124 .111 .101 .094 .089 .085 .075 .078 .050 .042 .044 .048 .012-.012-.038-.065

 .549 .548 .545 .539 .534 .472 .317 .199 .140 .112 .097 .090 .086 .085 .097 .097 .070 .050 .043 .041 .055 .025-.002-.028-.055

 .552 .550 .545 .531 .498 .344 .242 .173 .127 .102 .086 .081 .084 .080 .127 .127 .057 .047 .043 .042 .059 .034 .008-.019-.045

 .559 .557 .551 .469 .368 .206 .202 .152 .115 .094 .077 .084 .079 .107 .158 .097 .054 .053 .047 .044 .072 .040-.016-.009-.035

 .569 .566 .514 .375 .283 .220 .175 .137 .103 .090 .076 .103 .072 .126 .129 .077 .067 .059 .053 .053 .073 .045 .024 .001-.024

 .610 .552 .406 .208 .223 .163 .155 .125 .095 .093 .084 .107 .086 .196 .111 .075 .090 .066 .062 .062 .078 .051 .033 .012-.012

 .610 .451 .320 .220 .176 .155 .137 .118 .101 .090 .091 .101 .106 .216 .103 .077 .126 .067 .070 .072 .071 .059 .044 .026 .004

 .392 .353 .237 .163 .151 .137 .125 .114 .104 .104 .094 .095 .110 .154 .113 .078 .112 .082 .073 .085 .072 .068 .059 .045 .025

 .254 .230 .148 .126 .126 .120 .114 .112 .107 .110 .096 .099 .124 .127 .114 .091 .098 .103 .089 .099 .074 .082 .079 .070 .055

 .120 .073 .087 .099 .101 .103 .105 .107 .108 .108 .108 .109 .100 .099 .102 .107 .102 .104 .106 .105 .100 .103 .102 .101 .098
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744      - L.A. WINDFIELD ANALYSIS                              ANAL70 PAGE   40  23 MAR 73 18:50:57
   SETS=10

GRIDPRINT OF      U(     X,      Y) IN UNITS 1.0000-02

 .023 .023 .025 .026 .027 .028 .030 .032 .035 .037 .038 .039 .038 .034 .024-.036 .000 .000 .000 .000 .135 .076 .043 .019-.004

 .025 .025 .025 .026 .027 .028 .030 .032 .035 .037 .039 .039 .039 .036 .032 .034 .000 .000 .000 .000 .070 .058 .034 .015-.002

 .026 .025 .025 .026 .026 .027 .029 .032 .035 .038 .040 .041 .041 .040 .039 .037 .025 .000 .000 .000 .045 .033 .023 .011-.001

 .026 .026 .025 .025 .025 .025 .027 .031 .037 .040 .042 .043 .044 .044 .045 .047 .053 .000 .000 .000 .021 .016 .012 .007 .000

 .026 .026 .026 .025 .023 .022 .022 .030 .040 .044 .045 .046 .047 .047 .050 .053 .060 .037 .000 .000 .001 .004 .005 .003 .001

 .026 .026 .026 .025 .023 .017 .010 .024 .051 .050 .046 .052 .050 .048 .047 .041 .037 .028 .019 .000-.005-.002 .000 .001 .002

 .026 .027 .027 .027 .025 .021 .006 .000 .076 .054 .068 .068 .051 .042 .030 .030 .027 .020 .012 .006-.008-.005-.002 .000 .002

 .026 .027 .029 .031 .031 .040 .000 .000 .000 .007 .040 .037 .030 .025 .023 .024 .018 .015 .010-.012-.008-.006-.003 .000 .003

 .025 .028 .032 .035 .039 .000 .000 .000 .003 .038 .028 .021 .019 .020 .018 .011 .010 .009 .005-.007-.005-.005-.002 .000 .002

 .025 .029 .034 .041 .056 .000 .048 .011 .017 .019 .016 .014 .016 .014 .010 .007 .006 .005 .005 .002-.004-.003-.001 .001 .002

 .025 .029 .033 .040 .049 .016 .017 .015 .011 .010 .010 .011 .009 .007 .006 .005 .003 .003 .002-.003-.005-.001 .000 .001 .002

 .025 .028 .031 .033 .032 .023 .017 .014 .009 .007 .007 .006 .006 .005 .004 .003 .002 .001-.001-.002-.002 .002 .001 .001 .002

 .026 .027 .028 .028 .026 .022 .016 .010 .006 .006 .005 .004 .003 .003 .002 .002 .000 .001 .001-.000 .002 .001 .001 .001 .002

 .026 .026 .027 .026 .024 .021 .017 .012 .009 .007 .004 .003 .002 .001 .001 .000 .001 .002 .000 .000-.000-.001 .001 .001 .002

 .026 .026 .026 .025 .024 .022 .018 .010 .006 .005 .003 .002 .000-.000-.000-.000 .001 .000-.001-.001-.001-.001-.000 .001 .002

 .026 .026 .026 .025 .024 .023 .016 .006 .004 .002 .001-.000-.002-.002-.002-.001-.000-.001-.001-.001-.001-.001-.000 .001 .002

 .026 .026 .026 .026 .025 .020 .008 .003 .001-.001-.002-.003-.004-.004-.004-.002-.001-.001-.001-.001-.001-.001-.000 .001 .002

 .026 .026 .027 .026 .023 .010 .003-.001-.002-.003-.004-.005-.005-.005-.003 .001-.001-.002-.002-.002-.001-.001-.000 .001 .002

 .026 .027 .028 .024 .011 .003-.001-.004-.005-.006-.006-.006-.006-.004-.001-.004-.004-.003-.002-.002-.001-.001-.000 .001 .002

 .026 .027 .023 .012 .004-.001-.004-.006-.007-.006-.007-.006-.006-.005-.003-.006-.005-.004-.003-.002-.001-.001-.000 .001 .002

 .027 .025 .015 .007-.000-.006-.007-.008-.009-.009-.008-.008-.008-.005-.007-.007-.006-.004-.004-.003-.002-.002-.001 .000 .002

 .029 .010 .008 .001-.004-.007-.008-.009-.009-.009-.008-.008-.008-.007-.008-.007-.007-.006-.005-.004-.003-.002-.001 .000 .002

 .027 .013 .004-.003-.006-.007-.008-.009-.009-.009-.008-.008-.007-.008-.009-.008-.009-.009-.007-.006-.004-.004-.002-.001 .002

 .026 .015 .004-.002-.005-.007-.009-.010-.010-.009-.009-.006-.008-.010-.011-.011-.010-.011-.009-.008-.007-.006-.004-.001 .002

 .031 .003-.003-.004-.005-.007-.007-[illegible]-.004-.016-.009-.007-.008-.012-.015-.015-.013-.012-.012-.009-.013-.009-.006-.003-.001

  71       T OF 9 PLACES:100 72 67 93 8. 9. 91 92 86                       ) 3 PM
  46       NR-OF 2-Y FROM [illegible] OF 2-X-FROM 43 TO 49:64 78          ) 3 PM
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218      L.A. WINGFIELD ANALYSIS                                          ANAL70 PAGE   41  23 MAR 73 18:51:28
  SEIS=11
GRIDPRINT OF      T(     X,     Y) IN UNITS 1.0000+03

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .069 .075 .078 .082 .085 .089 .093 .097 .102
.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .069 .074 .079 .083 .086 .089 .093 .097 .101
.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .068 .076 .082 .085 .087 .090 .094 .097 .101
.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .070 .076 .082 .086 .088 .091 .094 .098 .101
.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .068 .073 .077 .083 .087 .089 .092 .095 .098 .101
.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .066 .069 .072 .075 .079 .084 .088 .090 .093 .095 .098 .101
.064 .064 .064 .064 .064 .064 .065 .066 .064 .064 .064 .066 .068 .070 .072 .075 .078 .081 .086 .090 .091 .094 .096 .099 .101
.064 .064 .064 .064 .064 .064 .067 .068 .067 .067 .068 .070 .072 .073 .076 .078 .080 .083 .088 .092 .093 .096 .097 .099 .101
.064 .064 .064 .064 .064 .065 .068 .066 .069 .070 .071 .073 .074 .076 .078 .080 .083 .086 .089 .094 .096 .097 .099 .100 .102
.064 .064 .064 .064 .064 .065 .067 .069 .071 .073 .074 .076 .077 .079 .080 .082 .085 .087 .091 .096 .100 .099 .101 .101 .102
.064 .064 .064 .064 .064 .064 .067 .071 .074 .076 .077 .078 .079 .081 .082 .084 .086 .089 .092 .095 .097 .101 .102 .102 .105
.064 .064 .064 .064 .064 .064 .066 .073 .078 .080 .080 .080 .081 .083 .084 .086 .087 .090 .093 .095 .098 .100 .100 .104 .106
.064 .064 .064 .064 .064 .064 .068 .074 .086 .082 .082 .082 .083 .085 .086 .088 .090 .092 .093 .096 .098 .100 .101 .104 .104
.064 .064 .064 .064 .064 .064 .064 .073 .080 .082 .083 .083 .085 .086 .088 .090 .091 .093 .094 .096 .097 .099 .101 .102 .107
.064 .064 .064 .064 .064 .064 .066 .073 .078 .081 .083 .084 .086 .087 .089 .090 .092 .093 .094 .096 .097 .099 .103 .106 .108
.064 .064 .064 .064 .064 .064 .069 .074 .078 .081 .083 .085 .086 .088 .090 .091 .093 .094 .095 .096 .097 .100 .105 .107 .109
.064 .064 .064 .064 .064 .068 .072 .076 .079 .082 .084 .086 .087 .089 .090 .092 .093 .094 .095 .096 .097 .103 .106 .105 .108
.064 .064 .064 .066 .068 .071 .075 .078 .081 .084 .086 .087 .089 .090 .092 .094 .094 .095 .095 .096 .098 .101 .104 .104 .108
.064 .064 .064 .068 .072 .075 .078 .081 .084 .086 .087 .089 .090 .091 .093 .093 .094 .095 .095 .096 .098 .102 .104 .104 .108
.064 .064 .068 .072 .075 .078 .081 .084 .087 .068 .089 .090 .091 .092 .093 .093 .094 .094 .095 .096 .098 .104 .105 .103 .107
.064 .068 .072 .075 .078 .080 .083 .087 .092 .090 .090 .090 .091 .093 .093 .093 .094 .094 .095 .096 .098 .101 .104 .103 .107
.064 .070 .075 .079 .081 .082 .084 .087 .089 .090 .090 .090 .091 .093 .092 .093 .095 .094 .095 .096 .099 .101 .103 .102 .105
.069 .074 .079 .086 .083 .083 .085 .086 .088 .089 .089 .090 .091 .092 .093 .093 .095 .095 .096 .097 .099 .102 .101 .102 .105
.074 .078 .080 .082 .083 .083 .084 .085 .087 .088 .088 .089 .091 .092 .092 .093 .094 .095 .096 .097 .099 .102 .103 .102 .106
.079 .080 .080 .081 .082 .083 .084 .085 .086 .087 .087 .089 .091 .092 .092 .093 .094 .095 .096 .097 .100 .101 .103 .104 .108
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709 - L.A. WINDFIELD ANALYSIS                                                    ANAL70 PAGE   42  23 MAR 73 18:51:52
  SETS=11
GRIDPRINT OF   PHI(    X,     Y) IN UNITS 1.0000+03

.003 .011 .018 .025 .032 .039 .046 .053 .060 .067 .074 .081 .088 .095 .103 .111 .000 .000 .000 .000 .141 .149 .157 .163 .169

.008 .016 .023 .030 .037 .045 .052 .059 .067 .074 .082 .089 .096 .102 .108 .113 .000 .000 .000 .000 .160 .162 .164 .166 .168

.013 .021 .028 .035 .042 .050 .058 .066 .074 .082 .089 .097 .104 .110 .115 .120 .122 .000 .000 .000 .172 .171 .170 .169 .168

.018 .026 .033 .040 .047 .055 .063 .072 .081 .089 .097 .105 .112 .118 .124 .128 .130 .000 .000 .000 .179 .176 .173 .170 .168

.023 .031 .038 .045 .052 .060 .068 .078 .088 .098 .106 .114 .121 .127 .133 .138 .143 .150 .000 .000 .181 .178 .175 .171 .168

.029 .036 .043 .050 .057 .064 .071 .083 .097 .107 .115 .123 .130 .137 .143 .148 .152 .157 .163 .000 .180 .178 .175 .172 .168

.034 .041 .048 .055 .061 .067 .000 .000 .110 .117 .125 .135 .140 .146 .151 .155 .159 .162 .166 .177 .179 .177 .175 .172 .169

.039 .047 .054 .061 .067 .072 .030 .000 .000 .131 .139 .145 .149 .153 .156 .160 .163 .165 .168 .176 .177 .176 .174 .172 .169

.044 .052 .060 .067 .074 .000 .000 .000 .137 .142 .147 .151 .154 .157 .161 .164 .166 .168 .170 .174 .176 .175 .174 .172 .170

.049 .058 .066 .075 .082 .000 .121 .135 .143 .147 .151 .154 .157 .161 .163 .166 .167 .169 .171 .174 .175 .174 .174 .172 .170

.054 .063 .073 .083 .095 .112 .126 .138 .146 .150 .153 .157 .160 .162 .165 .167 .168 .170 .172 .173 .174 .174 .174 .172 .171

.059 .069 .079 .090 .102 .116 .130 .141 .148 .152 .155 .158 .161 .164 .166 .167 .169 .170 .172 .173 .173 .174 .174 .173 .171

.064 .075 .085 .096 .108 .120 .133 .143 .149 .153 .156 .159 .162 .164 .166 .168 .169 .170 .172 .173 .173 .174 .174 .173 .172

.069 .080 .091 .102 .113 .125 .136 .146 .151 .154 .157 .160 .162 .164 .166 .168 .169 .171 .172 .173 .174 .174 .174 .173 .172

.074 .085 .096 .107 .118 .129 .140 .148 .152 .155 .158 .160 .162 .164 .166 .168 .169 .171 .172 .173 .173 .174 .174 .173 .172

.079 .090 .101 .112 .123 .133 .143 .149 .153 .156 .158 .160 .162 .164 .166 .168 .169 .171 .172 .172 .173 .174 .174 .174 .173

.085 .095 .106 .117 .127 .138 .145 .150 .154 .156 .158 .160 .162 .163 .165 .167 .169 .170 .171 .172 .173 .174 .174 .174 .173

.090 .101 .111 .122 .132 .141 .146 .150 .153 .156 .157 .159 .161 .162 .164 .167 .169 .170 .171 .172 .173 .174 .174 .174 .173

.095 .106 .117 .127 .136 .142 .147 .150 .153 .155 .156 .158 .160 .161 .164 .167 .169 .170 .171 .172 .173 .174 .174 .174 .174

.100 .111 .122 .131 .137 .142 .146 .149 .151 .153 .155 .157 .159 .161 .164 .166 .168 .169 .170 .171 .172 .174 .174 .174 .174

.105 .116 .126 .133 .136 .142 .145 .148 .150 .152 .153 .155 .157 .160 .163 .165 .167 .168 .169 .171 .172 .173 .174 .174 .174

.111 .120 .128 .133 .137 .141 .143 .146 .148 .150 .152 .154 .156 .159 .162 .163 .165 .167 .169 .170 .172 .173 .174 .175 .175

.116 .124 .129 .133 .136 .139 .142 .144 .146 .148 .150 .152 .154 .157 .160 .162 .164 .166 .167 .169 .171 .172 .173 .174 .175

.122 .126 .130 .133 .135 .138 .140 .142 .145 .147 .149 .151 .153 .156 .158 .160 .162 .164 .166 .168 .170 .171 .173 .174 .176

.127 .129 .130 .132 .135 .137 .139 .141 .143 .145 .147 .149 .151 .153 .155 .157 .160 .162 .164 .166 .168 .170 .172 .174 .176
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321 L.A. WINDFIELD ANALYSIS                                              ANAL70 PAGE 43 23 MAR 73 10:51:53
    SEIS=11
GRIDPRINT OF   V(   X,   Y) IN UNITS 1.0000+01

.435 .361 .355 .353 .352 .351 .349 .348 .348 .349 .351 .354 .357 .362 .367 .304 .000 .000 .000 .000 .280 .360 .330 .298 .271
.389 .369 .361 .360 .362 .366 .371 .373 .373 .368 .362 .354 .343 .324 .281 .123 .000 .000 .000 .000 .216 .077 .102 .110 .099
.372 .368 .364 .365 .370 .381 .394 .463 .401 .393 .374 .356 .334 .303 .253 .185 .012 .000 .000 .000 .149-.094-.067-.037-.034
.360 .364 .363 .364 .373 .392 .422 .445 .439 .414 .389 .363 .334 .300 .253 .181 .010 .000 .000 .000-.041-.148-.147-.174-.121
.363 .361 .359 .358 .364 .390 .454 .528 .495 .436 .403 .372 .337 .311 .274 .241 .223 .355 .000 .000-.091-.149-.170-.164-.158
.363 .360 .354 .345 .336 .344 .405 .847 .562 .424 .406 .381 .329 .322 .265 .227 .207 .279 .353 .000-.094-.127-.162-.169-.165
.369 .364 .353 .332 .298 .248 .000 .000 .595 .226 .475 .246 .284 .286 .172 .200 .178 .156 .300 .336-.053-.099-.140-.153-.156
.383 .377 .362 .330 .278 .231 .000 .000 .000 .211 .419 .209 .197 .194 .152 .197 .116 .117 .241 .246-.033-.077-.109-.126-.144
.407 .402 .387 .352 .285 .000 .000 .000 .245 .232 .237 .175 .153 .174 .157 .134 .094 .098 .143 .218-.026-.061-.075-.104-.129
.439 .438 .433 .414 .306 .000 .747 .645 .258 .200 .172 .152 .170 .155 .122 .101 .089 .086 .089 .196-.007-.026-.055-.086-.113
.474 .470 .488 .522 .658 .849 .665 .494 .269 .161 .168 .161 .153 .124 .105 .086 .075 .085 .081 .081 .007-.004-.042-.073-.100
.504 .509 .526 .566 .643 .697 .677 .429 .235 .177 .173 .150 .132 .113 .095 .073 .071 .075 .061 .038 .052-.008-.037-.065-.092
.523 .529 .542 .568 .602 .624 .628 .374 .188 .164 .160 .143 .125 .107 .087 .063 .066 .063 .059 .034 .090-.015-.036-.060-.086
.534 .537 .545 .559 .572 .578 .568 .324 .181 .162 .146 .133 .117 .100 .082 .059 .065 .066 .051 .043 .061 .017-.034-.056-.081
.530 .540 .543 .548 .551 .548 .526 .202 .166 .140 .128 .118 .107 .094 .081 .065 .077 .057 .046 .044 .045 .029-.027-.049-.075
.539 .539 .540 .539 .536 .527 .424 .232 .153 .124 .111 .103 .096 .092 .087 .077 .081 .052 .043 .044 .048 .013-.015-.040-.067
.540 .539 .537 .532 .527 .469 .306 .197 .138 .111 .097 .091 .088 .087 .100 .101 .073 .052 .044 .041 .052 .019-.005-.031-.058
.542 .541 .530 .523 .493 .343 .241 .171 .124 .100 .085 .082 .086 .082 .132 .134 .059 .050 .044 .042 .061 .031 .004-.022-.048
.540 .545 .541 .486 .368 .265 .201 .160 .112 .091 .076 .085 .081 .112 .160 .100 .055 .051 .047 .044 .077 .037 .012-.013-.038
.553 .551 .510 .373 .282 .219 .173 .135 .100 .087 .075 .106 .075 .131 .134 .078 .068 .059 .052 .050 .102 .040 .019-.003-.028
.584 .540 .404 .266 .221 .182 .152 .123 .092 .091 .084 .109 .089 .210 .113 .075 .092 .065 .061 .059 .104 .045 .029 .008-.015
.570 .447 .318 .217 .176 .154 .135 .116 .098 .097 .091 .103 .109 .231 .104 .076 .128 .065 .069 .071 .081 .054 .041 .023 .002
.370 .350 .235 .160 .149 .136 .124 .113 .103 .103 .094 .096 .120 .160 .115 .077 .113 .081 .072 .084 .070 .066 .057 .043 .024
.242 .234 .147 .124 .125 .119 .113 .112 .106 .109 .096 .099 .126 .129 .114 .089 .097 .103 .088 .098 .071 .081 .077 .069 .054
.100 .082 .080 .099 .101 .102 .104 .107 .107 .107 .108 .108 .105 .097 .101 .106 .101 .103 .105 .104 .099 .102 .102 .101 .097
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-744-------L.A. WINDFIELD ANALYSIS----------------------------------------ANAL70 PAGE   44  23 MAR 73 18:51:53
    SLTS=11

GRIDPRINT OF      U(      X,      Y) IN UNITS 1.0000+02

.023 .023 .024 .025 .026 .028 .030 .032 .034 .036 .038 .038 .037 .034 .023-.036 .000 .000 .000 .000 .134 .076 .043 .018-.004

.025 .025 .025 .025 .026 .027 .029 .032 .034 .037 .038 .039 .038 .036 .032 .034 .000 .000 .000 .000 .069 .057 .034 .015-.002

.026 .025 .025 .025 .026 .027 .029 .032 .035 .038 .040 .040 .040 .040 .038 .037 .025 .000 .000 .000 .045 .033 .022 .011-.001

.026 .026 .025 .025 .025 .025 .027 .031 .036 .040 .042 .043 .043 .044 .045 .047 .052 .000 .000 .000 .020 .015 .012 .007 .000

.026 .026 .025 .025 .023 .021 .022 .029 .039 .043 .044 .046 .046 .047 .049 .053 .060 .037 .000 .000 .001 .004 .005 .003 .001

.026 .026 .026 .025 .022 .017 .010 .023 .050 .049 .046 .051 .049 .048 .047 .041 .037 .028 .019 .000-.005-.002 .000 .001 .002

.026 .026 .027 .027 .025 .021 .000 .000-.075 .054 .067 .066 .050 .043 .031 .030 .027 .021 .012 .006-.007-.005-.002 .000 .002

.025 .027 .029 .030 .031 .040 .000 .000 .000 .066 .039 .038 .032 .026 .024 .024 .018 .015 .011-.012-.008-.006-.003 .000 .003

.025 .028 .031 .035 .034 .000 .000 .000-.032 .028 .029 .022 .019 .020 .018 .011 .010 .009 .005-.006-.006-.005-.002 .000 .002

.025 .029 .033 .041 .055 .000 .048 .011 .018 .019 .016 .014 .016 .013 .009 .007 .006 .005 .004-.001-.005-.003-.001 .001 .002

.025 .029 .033 .039 .048 .016 .017 .015 .011 .010 .010 .011 .009 .007 .006 .004 .003 .002 .002-.003-.004-.001 .000 .001 .002

.025 .028 .030 .032 .031 .022 .017 .014 .009 .007 .007 .006 .005 .004 .003 .002 .002 .001-.001-.002-.000 .001 .001 .001 .002

.025 .027 .028 .028 .026 .021 .016 .010 .005 .005 .004 .004 .003 .002 .002 .001-.000 .001 .000-.000 .001 .002 .001 .001 .002

.026 .026 .026 .026 .024 .021 .017 .012 .009 .006 .004 .003 .001 .001 .000-.000 .001 .001-.000 .000-.000-.000 .001 .001 .002

.026 .026 .026 .025 .024 .021 .016 .009 .006 .005 .003 .001-.000-.001-.001-.000 .001 .000-.001-.001-.001-.000 .000 .001 .002

.026 .026 .026 .025 .024 .023 .015 .006 .004 .002 .001-.001-.002-.002-.002-.001-.000-.001-.001-.001-.001-.001 .000 .001 .002

.026 .026 .026 .025 .025 .020 .008 .003 .001-.001-.002-.003-.004-.005-.004-.002-.001-.001-.001-.001-.001-.001-.000 .001 .002

.026 .026 .026 .026 .022 .010 .003-.000-.002-.003-.004-.005-.005-.005-.002 .002-.000-.002-.002-.001-.001-.001 .000 .001 .002

.026 .026 .027 .024 .012 .004-.001-.005-.005-.006-.006-.006-.005-.004-.000-.004-.004-.003-.002-.002-.001-.001 .000 .001 .002

.026 .026 .025 .012 .004-.001-.004-.006-.007-.007-.007-.006-.006-.005-.003-.006-.005-.004-.003-.002-.001-.001-.000 .001 .002

.027 .025 .016 .007 .000-.004-.007-.006-.009-.008-.008-.008-.007-.004-.007-.007-.006-.004-.004-.003-.002-.002-.001 .000 .002

.025 .017 .006 .001-.003-.006-.008-.009-.009-.008-.008-.008-.007-.006-.008-.007-.007-.006-.005-.004-.003-.003-.002-.000 .002

.027 .014 .004-.003-.005-.007-.008-.009-.009-.008-.008-.008-.006-.008-.009-.008-.009-.009-.007-.007-.005-.004-.003-.001 .002

.026 .014 .004-.001-.005-.007-.006-.009-.009-.009-.008-.008-.006-.010-.012-.011-.010-.011-.010-.008-.008-.006-.004-.002 .002

.032 .008-.003-.003-.004-.006-.006-.007-.006-.009-.009-.006-.008-.013-.016-.016-.013-.012-.012-.010-.014-.009-.006-.003 .001

 71      T OF 9 [illegible] 71 66 65 81 94 88 96 84                        ) N PM
--46 --- [illegible] FROM [illegible] POISE OF [illegible] FROM 43 TO 49:64-77 ---------) N PM
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218          L.A. WINDFIELD ANALYSIS                                          ANAL70 PAGE   45  23 MAR 73 18:52:27
   SETS=12
GRIDPRINT OF        T(     X,      Y) IN UNITS 1.0000+03

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .069 .074 .077 .081 .084 .087 .091 .094 .099

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .068 .074 .078 .082 .084 .087 .091 .094 .098

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .067 .076 .081 .083 .085 .088 .091 .095 .098

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .070 .075 .081 .085 .086 .089 .092 .095 .098

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .068 .072 .076 .081 .085 .087 .089 .092 .095 .098

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .066 .068 .071 .074 .078 .082 .086 .088 .090 .093 .095 .098

.064 .064 .064 .064 .064 .064 .065 .065 .064 .064 .064 .066 .068 .070 .071 .074 .077 .080 .084 .087 .089 .091 .093 .096 .098

.064 .064 .064 .064 .064 .064 .067 .067 .066 .067 .068 .069 .071 .072 .074 .077 .079 .081 .085 .089 .091 .093 .094 .096 .098

.064 .064 .064 .064 .064 .065 .068 .066 .068 .069 .070 .072 .073 .075 .077 .079 .081 .083 .087 .091 .093 .094 .096 .097 .099

.064 .064 .064 .064 .064 .065 .066 .068 .070 .071 .072 .074 .075 .077 .079 .081 .083 .085 .088 .093 .096 .096 .098 .098 .099

.064 .064 .064 .064 .064 .064 .066 .069 .072 .074 .075 .076 .077 .079 .080 .082 .085 .087 .089 .092 .094 .097 .098 .099 .102

.064 .064 .064 .064 .064 .064 .066 .071 .075 .076 .077 .078 .079 .080 .082 .084 .086 .088 .090 .092 .094 .097 .097 .101 .103

.064 .064 .064 .064 .064 .064 .064 .072 .081 .079 .079 .079 .080 .082 .083 .085 .087 .089 .091 .093 .095 .097 .098 .101 .101

.064 .064 .064 .064 .064 .064 .064 .071 .077 .079 .080 .080 .081 .083 .084 .085 .088 .090 .091 .093 .095 .096 .098 .099 .104

.064 .064 .064 .064 .064 .064 .066 .072 .076 .075 .080 .081 .082 .084 .085 .087 .089 .090 .092 .093 .095 .096 .100 .103 .105

.064 .064 .064 .064 .064 .064 .069 .073 .076 .079 .081 .082 .083 .085 .086 .088 .090 .091 .092 .093 .095 .097 .102 .104 .106

.064 .064 .064 .064 .064 .067 .071 .074 .077 .080 .082 .083 .085 .086 .067 .089 .091 .092 .093 .094 .095 .101 .103 .102 .105

.064 .064 .064 .066 .068 .071 .074 .077 .079 .081 .083 .084 .086 .087 .089 .091 .092 .094 .094 .094 .095 .098 .101 .101 .105

.064 .064 .064 .068 .071 .074 .077 .080 .082 .084 .085 .086 .087 .089 .090 .091 .092 .093 .093 .094 .095 .100 .102 .101 .105

.064 .064 .068 .071 .074 .076 .079 .082 .085 .086 .086 .088 .088 .089 .090 .090 .091 .092 .093 .094 .096 .101 .102 .100 .104

.064 .067 .071 .074 .077 .079 .081 .085 .090 .088 .087 .088 .088 .090 .090 .091 .092 .092 .093 .094 .096 .098 .101 .100 .104

.064 .070 .074 .078 .080 .081 .083 .085 .087 .088 .087 .088 .089 .091 .090 .091 .093 .092 .093 .094 .097 .098 .100 .099 .102

.064 .073 .078 .064 .082 .082 .083 .085 .086 .087 .087 .088 .089 .090 .091 .091 .092 .093 .093 .094 .097 .099 .098 .099 .102

.074 .077 .079 .081 .081 .082 .083 .084 .085 .086 .086 .087 .089 .090 .090 .090 .091 .093 .093 .094 .097 .099 .100 .100 .103

.070 .079 .079 .080 .080 .081 .082 .084 .084 .085 .086 .087 .089 .089 .090 .091 .091 .092 .093 .095 .097 .099 .100 .101 .105
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749       L.A. INLFIELD ANALYSIS                                                        ANAL70 PAGE    46  23 MAR 73 18:52:51
   SETS=12
GRIDPRINT OF     PHI(      X,      Y) IN UNITS 1.0000+03

.004 .015 .025 .035 .045 .055 .065 .075 .085 .094 .104 .114 .124 .135 .145 .157 .000 .000 .000 .000 .199 .210 .221 .230 .239

.011 .022 .032 .042 .052 .062 .072 .082 .093 .103 .113 .123 .133 .142 .151 .156 .000 .000 .000 .000 .224 .228 .231 .234 .238

.016 .026 .038 .048 .058 .069 .079 .090 .101 .112 .123 .133 .142 .151 .158 .164 .167 .000 .000 .000 .000 .241 .239 .238 .238

.025 .035 .045 .055 .065 .075 .086 .098 .110 .121 .132 .142 .152 .160 .168 .173 .000 .000 .000 .000 .249 .247 .243 .240 .237

.035 .043 .052 .061 .071 .081 .092 .105 .119 .131 .142 .153 .163 .171 .179 .185 .192 .202 .000 .000 .251 .248 .245 .241 .238

.040 .050 .059 .068 .077 .085 .096 .112 .130 .142 .153 .165 .175 .183 .191 .198 .204 .210 .220 .000 .249 .247 .244 .241 .238

.045 .057 .066 .075 .082 .089 .000 .000 .146 .155 .164 .000 .188 .195 .202 .207 .212 .216 .222 .000 .246 .245 .243 .241 .239

.053 .064 .073 .082 .089 .095 .000 .000 .000 .174 .184 .194 .199 .204 .209 .215 .218 .221 .226 .238 .242 .242 .241 .240 .239

.062 .072 .082 .091 .098 .000 .000 .000 .182 .189 .195 .201 .206 .210 .215 .220 .222 .224 .228 .234 .239 .239 .237 .240 .240

.067 .080 .090 .101 .109 .000 .000 .180 .190 .196 .201 .206 .210 .215 .219 .222 .224 .226 .228 .232 .236 .235 .237 .240 .241

.076 .088 .100 .112 .127 .149 .170 .184 .194 .200 .205 .209 .214 .218 .221 .223 .225 .227 .229 .231 .233 .234 .000 .241 .241

.083 .096 .109 .122 .137 .155 .173 .186 .197 .203 .208 .212 .216 .219 .222 .224 .226 .227 .229 .230 .231 .235 .239 .241 .241

.090 .103 .117 .131 .146 .161 .177 .191 .199 .205 .210 .214 .217 .220 .223 .225 .226 .228 .229 .230 .232 .236 .239 .241 .242

.097 .111 .124 .138 .153 .167 .182 .195 .202 .207 .211 .215 .218 .221 .223 .225 .226 .228 .230 .231 .233 .235 .239 .242 .242

.104 .118 .132 .145 .159 .173 .187 .198 .205 .209 .212 .216 .219 .221 .224 .225 .227 .229 .230 .231 .233 .235 .240 .242 .243

.112 .125 .139 .153 .166 .180 .192 .201 .206 .210 .213 .216 .219 .221 .224 .226 .228 .230 .231 .232 .233 .000 .240 .242 .243

.119 .132 .146 .160 .173 .186 .196 .203 .208 .211 .214 .216 .218 .221 .223 .226 .228 .230 .231 .232 .233 .237 .240 .242 .243

.126 .140 .153 .167 .180 .191 .199 .204 .208 .211 .213 .215 .217 .220 .222 .226 .229 .230 .231 .232 .234 .000 .241 .242 .244

.133 .147 .161 .174 .186 .194 .200 .204 .208 .210 .212 .214 .217 .219 .223 .227 .229 .230 .231 .232 .234 .239 .241 .243 .244

.140 .154 .168 .180 .188 .195 .200 .204 .207 .209 .211 .213 .216 .218 .224 .226 .228 .230 .231 .232 .234 .239 .241 .243 .244

.146 .162 .174 .183 .190 .195 .199 .203 .206 .208 .210 .212 .215 .218 .223 .225 .228 .230 .231 .232 .234 .000 .242 .243 .245

.153 .168 .179 .185 .190 .194 .198 .201 .204 .207 .209 .211 .214 .218 .222 .224 .227 .229 .231 .232 .000 .000 .243 .244 .245

.163 .173 .180 .186 .190 .194 .197 .200 .203 .205 .208 .211 .213 .218 .221 .224 .226 .227 .230 .231 .234 .240 .000 .244 .245

.174 .177 .182 .186 .189 .193 .196 .199 .202 .205 .207 .210 .213 .216 .220 .223 .225 .228 .230 .231 .000 .000 .242 .244 .245

.177 .181 .184 .186 .189 .192 .195 .198 .201 .204 .207 .210 .213 .215 .218 .221 .224 .227 .230 .233 .000 .000 .242 .243 .246
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721 ----- L.A. 1W/FIELD ANALYSIS                                  ANALTO PAGE   47  23 MAR 73 16:52:52
  SEIS=12
GRIDPRINT OF      V(     X,     Y) IN UNITS 1.0000+02

 .062 .051 .050 .050 .050 .050 .049 .049 .049 .049 .050 .050 .050 .051 .052 .044 .000 .000 .000 .000 .034 .052 .048 .044 .041
 .054 .051 .050 .050 .050 .051 .051 .052 .052 .051 .050 .049 .046 .045 .038 .015 .000 .000 .000 .000 .040 .012 .016 .017 .020
 .051 .050 .050 .050 .051 .052 .054 .055 .055 .053 .051 .049 .046 .041 .033 .022 .010 .000 .000 .000 .000-.012-.008-.003 .001
 .049 .049 .049 .049 .050 .053 .057 .060 .059 .056 .053 .050 .045 .040 .032 .018 .000 .000 .000 .000 .006-.016-.018-.013-.013
 .040 .048 .047 .047 .046 .052 .060 .071 .066 .058 .054 .052 .046 .041 .035 .030 .036 .045 .000 .000-.002-.015-.019-.017-.019
 .047 .047 .046 .044 .043 .045 .064 .114 .074 .054 .053 .061 .044 .041 .035 .030 .028 .036 .066 .000-.005-.011-.016-.016-.018
 .047 .046 .045 .042 .037 .031 .000 .000 .077 .025 .048 .000 .032 .036 .023 .028 .024 .021 .040 .000-.002-.006-.011-.011-.012
 .048 .047 .045 .040 .033 .027 .000 .000 .000 .025 .058 .027 .023 .025 .020 .028 .015 .015 .038 .049 .002-.003-.004-.005-.006
 .050 .050 .047 .042 .032 .000 .000 .000 .030 .033 .036 .027 .021 .024 .021 .018 .011 .013 .021 .042 .001-.002 .007 .002-.000
 .054 .054 .053 .050 .032 .000 .000 .000 .035 .029 .025 .022 .024 .021 .016 .013 .011 .010 .011 .029-.003 .001 .022 .008-.010
 .059 .059 .061 .065 .063 .117 .078 .063 .036 .025 .024 .023 .021 .017 .014 .011 .008 .011 .011 .013-.001 .024 .000 .002-.008
 .063 .064 .066 .071 .082 .091 .086 .059 .033 .025 .024 .021 .018 .015 .012 .009 .007 .009 .009 .004 .007 .032 .013 .002-.001
 .066 .066 .068 .072 .077 .080 .079 .053 .027 .026 .022 .019 .017 .014 .011 .008 .007 .007 .007 .004 .018 .020 .018 .005-.001
 .067 .068 .069 .071 .073 .073 .072 .047 .026 .023 .020 .018 .015 .013 .010 .008 .007 .008 .006 .006 .013 .014 .024 .005-.004
 .066 .066 .069 .069 .070 .069 .068 .041 .024 .019 .017 .015 .014 .012 .011 .008 .010 .006 .005 .006 .008 .013 .015 .006 .002
 .068 .068 .068 .068 .068 .067 .058 .033 .021 .017 .015 .013 .012 .012 .012 .010 .010 .006 .005 .006 .007 .000 .010 .007 .004
 .060 .068 .068 .067 .067 .062 .042 .027 .019 .015 .013 .012 .011 .011 .014 .014 .009 .006 .005 .005 .009 .029 .011 .007 .005
 .069 .068 .068 .067 .064 .046 .032 .023 .016 .013 .011 .010 .011 .010 .019 .019 .007 .005 .005 .006 .011 .000 .010 .007 .005
 .069 .069 .069 .064 .046 .035 .026 .020 .014 .011 .009 .011 .010 .015 .025 .013 .006 .005 .005 .006 .013 .014 .010 .007 .005
 .070 .070 .067 .049 .037 .029 .023 .017 .012 .011 .009 .014 .009 .018 .019 .009 .008 .007 .006 .007 .019 .015 .010 .007 .005
 .073 .069 .054 .038 .029 .024 .020 .016 .011 .011 .010 .014 .011 .030 .015 .009 .011 .007 .006 .007 .020 .000 .009 .006 .004
 .071 .059 .043 .029 .023 .020 .017 .015 .012 .012 .012 .013 .014 .033 .014 .009 .018 .007 .006 .005 .000 .000 .008 .005 .003
 .049 .046 .032 .021 .020 .018 .016 .015 .013 .014 .012 .012 .016 .023 .016 .010 .015 .009 .006 .004 .028 .012 .000 .004 .004
 .035 .031 .020 .017 .017 .016 .015 .015 .014 .015 .013 .013 .018 .018 .016 .012 .013 .013 .009 .005 .000 .000 .009 .009 .008
 .015 .012 .012 .014 .014 .014 .014 .015 .015 .015 .015 .015 .014 .013 .014 .015 .014 .015 .015 .015 .000 .000 .015 .014 .014
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744     L.A. WINDFIELD ANALYSIS                                            ANAL70 PAGE  48  23 MAR 73 18:52:53
  SETS=12
GRIDPRINT OF      U(     X,      Y) IN UNITS 1.0000+02

 .032 .031 .033 .033 .034 .035 .036 .039 .041 .043 .045 .044 .042 .037 .020-.065 .000 .000 .000 .000 .188 .107 .060 .023-.007
 .035 .034 .033 .033 .033 .034 .036 .039 .041 .044 .045 .045 .044 .040 .032 .033 .000 .000 .000 .000 .090 .080 .047 .020-.004
 .036 .035 .034 .033 .033 .033 .035 .038 .042 .045 .047 .048 .047 .045 .042 .037 .022 .000 .000 .000 .000 .043 .029 .014-.002
 .036 .035 .034 .033 .031 .031 .032 .037 .044 .047 .050 .051 .052 .052 .053 .058 .000 .000 .000 .000 .027 .016 .014 .008 .000
 .037 .035 .034 .032 .029 .026 .026 .035 .048 .052 .052 .055 .057 .058 .060 .066 .071 .037 .000 .000-.005 .000 .003 .003 .002
 .036 .036 .035 .032 .025 .019 .0.0 .028 .063 .060 .052 .061 .064 .061 .061 .054 .049 .037 .006 .000-.012-.008-.004-.000 .003
 .035 .036 .036 .035 .031 .024 .000 .000 .098 .068 .077 .000 .069 .056 .041 .041 .037 .027 .018 .000-.017-.013-.008-.002 .004
 .036 .038 .039 .040 .039 .049 .000 .000 .000 .088 .058 .036 .041 .035 .032 .033 .024 .020 .013-.024-.019-.017-.011-.003 .004
 .035 .039 .043 .047 .050 .000 .000 .000 .042 .054 .043 .028 .025 .027 .026 .014 .014 .012 .005-.017-.015-.018-.011-.001 .004
 .035 .040 .046 .056 .079 .000 .000 .020 .029 .029 .024 .020 .022 .019 .013 .009 .007 .006 .005 .002-.014-.015-.006 .005 .004
 .035 .040 .046 .055 .069 .029 .008 .020 .017 .015 .015 .016 .013 .009 .008 .006 .004 .003 .003-.006-.013 .002 .000 .001 .000
 .035 .039 .042 .046 .045 .032 .021 .018 .013 .011 .012 .010 .008 .006 .005 .003 .002 .002-.001-.003-.002 .005 .010-.001 .003
 .036 .038 .039 .040 .037 .031 .023 .015 .009 .010 .008 .007 .005 .004 .003 .002 .001 .003 .002 .001 .007 .002-.001 .002 .002
 .036 .037 .037 .037 .034 .030 .025 .019 .015 .011 .008 .005 .004 .003 .002 .002 .003 .005 .002 .003 .001-.004 .004-.000 .003
 .036 .036 .036 .035 .034 .031 .027 .016 .011 .009 .006 .004 .002 .001 .001 .002 .004 .003 .002 .001-.001-.000 .003-.000 .002
 .036 .036 .036 .035 .034 .032 .026 .012 .008 .005 .003 .001-.001-.001-.001 .002 .003 .001 .001 .002 .001 .000 .000 .001 .002
 .036 .036 .036 .036 .038 .031 .015 .007 .004 .002-.000-.002-.003-.004-.004 .001 .002 .001 .001 .001 .001 .002 .002 .001 .002
 .036 .036 .037 .036 .033 .018 .008 .003 .000-.002-.003-.005-.005-.005-.000 .007 .003 .001 .001 .001 .004 .000 .002 .002 .002
 .036 .037 .033 .036 .021 .009 .003-.001-.003-.004-.006-.006-.004-.002 .005-.002-.002-.001 .000 .001 .001 .003 .002 .002 .002
 .035 .037 .034 .021 .010 .003-.001-.004-.006-.006-.006-.004-.004-.002 .001-.005-.003-.001-.000-.000-.000 .001 .002 .002 .001
 .037 .036 .023 .013 .004-.001-.005-.007-.006-.007-.006-.006-.005-.000-.005-.005-.004-.001-.001-.002 .001 .000 .003 .002 .001
 .039 .025 .014 .006-.001-.004-.007-.008-.007-.006-.005-.005-.005-.002-.005-.004-.003-.002-.002-.002 .010 .000 .003 .002 .001
 .039 .022 .003-.006-.003-.005-.006-.000-.006-.005-.004-.004-.001-.003-.006-.004-.004-.004-.002-.002-.001-.001 .000-.000 .002
 .037 .023 .010 .002-.001-.004-.006-.000-.005-.005-.004-.002-.002-.005-.008-.007-.006-.005-.002 .003 .000 .000-.007-.003 .002
 .047 .016 .001 .001-.001-.002-.002-.001-.003-.004-.003 .001-.006-.008-.013-.012-.008-.006-.002 .014 .000 .000-.012-.005 .002

 71      T OF 9 [illegible] 71 86 60 77 98 32 85 78                        ) 5 PM
 70      [illegible] OF 2 Y FROM 31 TO 49:64 RISE OF 2 X FROM 43 TO 49:64 71  ) 5 P[illegible]
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218      L.A. WINDFIELD ANALYSIS
   SETS=13                                                              ANALTO PAGE   49  23 MAR 73 18:53:23
GRIDPRINT OF       T(      X,      Y) IN UNITS 1.0000+03

.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .068 .073 .076 .079 .081 .084 .087 .090 .094
.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .068 .072 .076 .079 .081 .084 .087 .090 .093
.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .067 .074 .079 .081 .082 .085 .087 .090 .093
.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .069 .074 .079 .082 .083 .085 .087 .090 .093
.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .067 .071 .074 .079 .082 .083 .086 .088 .090 .093
.064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .064 .066 .067 .070 .073 .076 .079 .083 .084 .086 .088 .091 .093
.064 .064 .064 .064 .064 .064 .065 .065 .064 .064 .064 .066 .068 .069 .070 .072 .075 .077 .081 .084 .085 .087 .089 .091 .093
.064 .064 .064 .064 .064 .064 .066 .067 .066 .066 .067 .069 .071 .071 .073 .075 .076 .079 .082 .086 .086 .088 .090 .091 .093
.064 .064 .064 .064 .064 .064 .068 .067 .067 .068 .069 .071 .072 .073 .075 .076 .078 .080 .083 .087 .088 .089 .091 .092 .094
.064 .064 .064 .064 .064 .065 .066 .067 .069 .070 .071 .072 .074 .075 .076 .078 .080 .082 .084 .089 .091 .091 .093 .093 .094
.064 .064 .064 .064 .064 .064 .066 .068 .070 .072 .073 .074 .075 .076 .077 .079 .081 .083 .085 .087 .089 .092 .093 .094 .097
.064 .064 .064 .064 .064 .064 .065 .069 .073 .074 .074 .075 .076 .077 .078 .080 .082 .084 .086 .088 .090 .092 .092 .096 .098
.064 .064 .064 .064 .064 .064 .064 .070 .077 .075 .075 .076 .077 .078 .079 .080 .083 .085 .086 .088 .091 .092 .093 .097 .096
.064 .064 .064 .064 .064 .064 .064 .070 .074 .075 .076 .077 .078 .079 .080 .080 .083 .085 .087 .088 .090 .091 .093 .094 .099
.064 .064 .064 .064 .064 .064 .066 .070 .073 .075 .076 .077 .078 .080 .081 .082 .084 .086 .087 .089 .090 .091 .095 .098 .100
.064 .064 .064 .064 .064 .064 .068 .071 .073 .075 .077 .078 .079 .080 .082 .083 .085 .086 .088 .089 .090 .093 .097 .099 .101
.064 .064 .064 .064 .064 .067 .069 .072 .074 .076 .078 .079 .080 .081 .083 .084 .086 .088 .088 .089 .090 .096 .098 .097 .100
.064 .064 .064 .065 .067 .069 .072 .074 .076 .078 .079 .080 .081 .082 .085 .087 .087 .090 .089 .089 .090 .094 .096 .096 .100
.064 .064 .064 .067 .069 .071 .074 .076 .078 .079 .080 .081 .082 .083 .085 .086 .087 .088 .089 .089 .091 .095 .097 .096 .100
.064 .064 .067 .069 .071 .073 .076 .076 .081 .061 .081 .082 .082 .084 .085 .085 .087 .088 .088 .089 .091 .097 .097 .095 .099
.064 .066 .069 .071 .073 .075 .077 .080 .085 .063 .082 .082 .083 .085 .085 .085 .087 .087 .088 .089 .091 .093 .096 .095 .099
.064 .068 .071 .074 .075 .076 .078 .080 .082 .082 .082 .082 .083 .085 .085 .085 .087 .087 .088 .089 .092 .093 .095 .094 .097
.068 .070 .073 .078 .076 .077 .078 .079 .081 .061 .081 .082 .083 .085 .085 .085 .087 .088 .088 .089 .091 .094 .093 .094 .097
.070 .072 .074 .075 .076 .078 .077 .076 .079 .080 .081 .082 .083 .084 .085 .085 .086 .087 .088 .089 .092 .094 .095 .095 .098
.072 .073 .073 .074 .075 .075 .077 .078 .079 .080 .080 .081 .083 .084 .085 .086 .086 .087 .088 .089 .092 .093 .095 .096 .100
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  749      = L.A. AIRFIELD ANALYSIS                                    ANAL70 PAGE   50  23 MAR 73 18:53:44
   SETS=13
 GRIDPRINT OF    PHI(     X,      Y) IN UNITS 1.0000+03

 .003 .009 .015 .021 .028 .034 .040 .046 .052 .058 .064 .070 .076 .082 .088 .096 .000 .000 .000 .000 .122 .128 .133 .138 .141

 .007 .013 .019 .025 .031 .038 .044 .050 .056 .063 .069 .075 .081 .086 .091 .095 .000 .000 .000 .000 .000 .138 .139 .140 .141

 .011 .017 .023 .029 .035 .041 .048 .054 .061 .068 .074 .080 .086 .091 .095 .098 .100 .000 .000 .000 .000 .146 .144 .142 .141

 .016 .022 .027 .033 .034 .045 .052 .059 .066 .073 .080 .086 .091 .096 .100 .103 .000 .000 .000 .000 .000 .149 .146 .144 .141

 .020 .026 .031 .037 .042 .048 .055 .063 .071 .079 .086 .092 .096 .103 .107 .111 .115 .000 .000 .000 .151 .150 .147 .144 .141

 .025 .030 .035 .041 .046 .050 .056 .067 .078 .086 .092 .099 .105 .110 .115 .118 .122 .126 .000 .000 .152 .150 .148 .145 .141

 .029 .035 .040 .045 .044 .053 .000 .000 .088 .093 .099 .000 .114 .117 .121 .124 .125 .130 .000 .000 .150 .149 .147 .145 .142

 .034 .039 .044 .049 .053 .056 .000 .000 .000 .104 .112 .118 .121 .123 .126 .130 .132 .134 .136 .000 .148 .147 .146 .144 .143

 .038 .044 .049 .054 .058 .000 .000 .000 .110 .113 .118 .122 .125 .128 .130 .133 .135 .136 .138 .143 .146 .145 .144 .144 .143

 .042 .049 .055 .061 .065 .000 .000 .109 .115 .119 .122 .125 .128 .131 .133 .135 .136 .137 .139 .000 .144 .143 .000 .144 .144

 .047 .054 .060 .068 .076 .089 .103 .112 .118 .122 .125 .128 .131 .133 .135 .136 .137 .138 .140 .141 .142 .000 .000 .000 .000

 .051 .056 .066 .074 .083 .094 .104 .114 .120 .124 .127 .130 .132 .134 .136 .137 .138 .139 .140 .141 .141 .143 .144 .000 .000

 .055 .063 .071 .079 .088 .097 .107 .116 .121 .125 .128 .131 .133 .135 .137 .138 .139 .139 .141 .141 .000 .000 .000 .000 .000

 .060 .068 .076 .084 .092 .101 .110 .118 .123 .126 .129 .132 .134 .136 .137 .138 .139 .140 .141 .142 .143 .144 .000 .000 .000

 .064 .072 .080 .088 .096 .105 .113 .120 .125 .128 .130 .132 .134 .136 .138 .139 .140 .141 .142 .142 .142 .143 .000 .000 .145

 .069 .076 .084 .092 .100 .108 .116 .122 .126 .129 .131 .133 .125 .136 .138 .139 .141 .141 .142 .142 .142 .000 .000 .145 .146

 .073 .081 .089 .097 .104 .112 .119 .124 .127 .129 .131 .133 .134 .136 .138 .139 .141 .142 .142 .142 .142 .000 .000 .000 .146

 .077 .085 .093 .101 .108 .115 .121 .124 .127 .129 .131 .132 .134 .135 .137 .140 .141 .142 .142 .142 .141 .000 .000 .000 .146

 .082 .090 .097 .105 .112 .118 .122 .125 .127 .129 .130 .131 .133 .135 .138 .141 .142 .142 .142 .142 .141 .000 .000 .000 .147

 .086 .094 .101 .109 .114 .119 .122 .125 .127 .128 .129 .131 .133 .134 .139 .141 .141 .142 .142 .142 .142 .000 .000 .000 .147

 .091 .098 .105 .111 .116 .119 .122 .124 .126 .127 .129 .130 .132 .135 .139 .140 .141 .142 .142 .142 .142 .000 .000 .000 .000

 .096 .102 .106 .113 .116 .119 .121 .123 .125 .127 .128 .130 .132 .000 .138 .139 .140 .142 .142 .142 .000 .000 .000 .000 .000

 .101 .105 .110 .113 .116 .118 .121 .123 .124 .126 .128 .129 .131 .134 .137 .138 .139 .141 .141 .142 .000 .000 .000 .000 .000

 .000 .000 .112 .114 .116 .118 .120 .122 .123 .125 .127 .128 .131 .133 .135 .137 .138 .139 .140 .141 .000 .000 .000 .000 .000

 .000 .000 .113 .114 .115 .118 .119 .121 .123 .124 .126 .126 .000 .131 .132 .134 .136 .137 .139 .141 .000 .000 .000 .000 .148
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721       - L.A. WINDFIELD ANALYSIS                                        ANALTO PAGE    51  23 MAR 73 18:53:45
   SETS=13
GRIDPRINT OF      V(     X,     Y) IN UNITS 1.0000+01
 .374 .311 .300 .305 .303 .302 .330 .299 .299 .360 .302 .304 .308 .313 .318 .265 .000 .000 .000 .000 .182 .275 .241 .200 .158
 .326 .310 .303 .302 .304 .308 .313 .316 .315 .311 .305 .297 .286 .267 .227 .095 .000 .000 .000 .000 .000 .056 .047 .043 .049
 .303 .299 .297 .297 .302 .313 .327 .330 .334 .324 .311 .294 .270 .235 .180 .098 .231 .000 .000 .000 .000-.052-.092-.073-.062
 . 89 .288 .287 .288 .295 .314 .345 .369 .362 .340 .319 .297 .265 .224 .167 .063 .000 .000 .000 .000 .000-.114-.152-.135-.143
 .278 .277 .274 .273 .277 .300 .365 .443 .408 .352 .329 .311 .267 .228 .190 .160 .363 .000 .000 .000 .033-.105-.159-.158-.179
 .270 .268 .262 .253 .243 .242 .311 .713 .444 .327 .320 .368 .259 .231 .203 .180 .182 .192 .000 .000-.051-.096-.144-.151-.171
 .267 .263 .253 .233 .204 .164 .000 .600 .449 .128 .310 .000 .177 .203 .142 .176 .188 .110 .000 .000-.030-.074-.114-.123-.141
 .273 .267 .252 .223 .177 .149 .030 .060 .000 .086 .297 .143 .117 .146 .125 .190 .085 .082 .200 .000-.020-.056-.064-.079-.097
 .280 .282 .267 .231 .165 .000 .030 .000 .162 .216 .226 .152 .109 .146 .133 .112 .063 .071 .143 .185-.018-.054 .006-.031-.062
 .312 .310 .302 .278 .161 .000 .000 .472 .223 .197 .162 .129 .150 .134 .096 .074 .060 .059 .065 .000-.038-.030 .000-.004-.051
 .340 .343 .350 .375 .487 .716 .621 .374 .239 .164 .156 .145 .136 .101 .082 .061 .045 .063 .067 .084-.029 .000 .000 .000 .000
 .365 .370 .385 .419 .491 .553 .525 .390 .217 .163 .162 .131 .111 .091 .074 .051 .040 .055 .041 .009 .018 .178 .003 .000 .000
 .383 .388 .400 .424 .457 .460 .476 .362 .189 .177 .145 .124 .105 .087 .068 .043 .041 .041 .039 .005 .000 .000 .000 .000 .000
 .392 .395 .404 .417 .432 .439 .433 .334 .185 .156 .131 .115 .099 .083 .065 .047 .043 .045 .029 .030 .074 .031 .000 .000 .000
 .395 .397 .401 .408 .413 .414 .406 .298 .169 .135 .116 .104 .092 .080 .069 .050 .059 .031 .019 .023 .031 .025 .000 .000-.051
 .394 .395 .397 .399 .400 .397 .373 .235 .153 .119 .101 .091 .085 .081 .077 .063 .061 .021 .009 .011 .012 .000 .000 .040-.014
 .391 .391 .392 .392 .390 .379 .289 .191 .133 .103 .087 .080 .078 .078 .094 .091 .049 .017 .004-.003-.003 .000 .000 .000 .023
 .380 .387 .388 .385 .382 .310 .223 .159 .114 .089 .072 .070 .076 .073 .141 .131 .028 .008-.001-.010-.004 .000 .000 .000 .058
 .381 .383 .384 .378 .328 .238 .181 .135 .097 .076 .058 .072 .067 .115 .190 .078 .015 .005-.003-.013-.003 .000 .000 .000 .066
 .374 .376 .381 .323 .247 .192 .153 .117 .082 .069 .054 .102 .053 .116 .122 .040 .026 .011-.001-.011 .016 .000 .000 .000 .070
 .357 .365 .346 .245 .188 .156 .131 .104 .071 .073 .065 .105 .076 .269 .086 .032 .051 .015 .004-.003 .031 .000 .000 .000 .000
 .293 .339 .277 .182 .146 .129 .114 .096 .078 .078 .072 .095 .110 .000 .071 .031 .093 .015 .010-.002 .000 .000 .000 .000 .000
 .056 .339 .208 .130 .122 .112 .103 .093 .084 .086 .075 .082 .130 .178 .098 .028 .067 .042 .015 .006 .000 .000 .000 .000 .000
 .600 .000 .109 .096 .101 .096 .091 .093 .087 .092 .074 .082 .128 .122 .099 .049 .061 .078 .047 .029 .000 .000 .000 .000 .000
 .600 .000 .073 .079 .061 .062 .063-.066 .085-.066 .087 .089 .000 .071 .079 .086 .080-.081-.087-.055 .000 .000 .000 .000 .076
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744     = L.A. WINDFIELD ANALYSIS                                    ANALTO PAGE   52  23 MAR 73 18153145
  SETS=13

GRIDPRINT OF       U(     X,     Y) IN UNITS 1.0000+01

 .196 .187 .195 .195 .195 .199 .208 .222 .237 .249 .256 .253 .236 .196 .091-.427 .000 .000 .000 .000 .874 .643 .352 .135-.035

 .219 .204 .199 .195 .193 .196 .206 .221 .238 .253 .260 .260 .247 .216 .162 .161 .000 .000 .000 .000 .000 .467 .278 .119-.018

 .224 .211 .201 .194 .183 .188 .196 .218 .242 .261 .272 .275 .269 .253 .226 .162 .051 .000 .000 .000 .000 .272 .178 .086-.004

 .223 .213 .202 .190 .178 .170 .178 .212 .253 .278 .290 .299 .302 .301 .304 .333 .000 .000 .000 .000 .000 .107 .088 .054 .008

 .223 .214 .203 .187 .165 .137 .125 .260 .284 .307 .310 .328 .341 .344 .361 .407 .379 .000 .000 .000 .069 .016 .026 .025 .017

 .224 .217 .207 .191 .161 .098-.043 .191 .387 .353 .306 .371 .390 .371 .379 .359 .321 .239 .000 .000-.045-.040-.017 .004 .024

 .222 .222 .219 .208 .183 .149 .000 .000 .594 .331 .490 .000 .432 .349 .270 .273 .253 .207 .000 .000-.093-.078-.046-.008 .029

 .220 .229 .237 .259 .230 .297 .000 .000 .000 .651 .451 .228 .269 .237 .231 .233 .173 .143 .109 .000-.120-.105-.071-.017 .034

 .217 .236 .261 .265 .303 .000 .000 .000 .240 .334 .253 .182 .171 .198 .190 .108 .106 .098 .057-.131-.092-.116-.077-.003 .033

 .214 .245 .263 .346 .488 .000 .000 .115 .198 .202 .156 .133 .165 .144 .099 .074 .064 .054 .055 .000-.078-.091 .000-.012 .017

 .214 .245 .283 .343 .437-.200-.010 .111 .120 .102 .103 .116 .096 .072 .063 .053 .042 .038 .034-.042-.076 .000 .000 .000 .000

 .216 .239 .262 .284 .279 .198 .117 .105 .083 .077 .085 .070 .059 .051 .045 .036 .031 .028 .005-.009-.032 .015 .013 .000 .000

 .219 .231 .241 .244 .228 .186 .135 .084 .061 .066 .054 .048 .043 .038 .032 .027 .022 .034 .033 .035 .000 .000 .000 .000 .000

 .221 .225 .227 .223 .208 .181 .148 .121 .101 .071 .052 .039 .030 .026 .024 .027 .035 .048 .023 .026 .004-.042 .000 .000 .000

 .222 .221 .219 .213 .201 .183 .184 .115 .070 .057 .041 .027 .017 .013 .016 .022 .040 .021 .010 .001-.019-.023 .000 .000 .017

 .222 .219 .215 .209 .194 .187 .151 .087 .054 .037 .022 .008-.001-.004 .001 .018 .022 .009 .003-.005-.026 .000 .000-.005 .018

 .222 .219 .214 .209 .201 .187 .115 .058 .031 .014-.001-.014-.023-.030-.022 .010 .015 .008 .003-.005-.018 .000 .000 .000 .013

 .222 .218 .214 .209 .199 .139 .069 .032 .006-.008-.022-.034-.034-.034 .018 .069 .029 .008 .002-.001-.005 .000 .000 .000 .016

 .222 .217 .214 .211 .157 .078 .033 .006-.012-.026-.037-.040-.028-.013 .062 .000-.007 .001 .002 .003 .006 .000 .000 .000 .015

 .223 .214 .205 .154 .082 .033 .002-.017-.030-.036-.035-.018-.017-.004 .045-.019-.009-.002 .003 .007 .016 .000 .000 .000 .014

 .223 .206 .164 .109 .045 .003-.027-.039-.046-.042-.035-.032-.029 .033-.038-.036-.027-.004-.001 .004 .025 .000 .000 .000 .000

 .235 .164 .107 .051 .002-.019-.037-.044-.041-.035-.030-.032-.027 .000-.046-.046-.044-.019-.013-.007 .000 .000 .000 .000 .000

 .184 .087 .079 .014-.006-.022-.053-.040-.039-.033-.030-.032-.020-.055-.081-.062-.087-.086-.040-.023 .000 .000 .000 .000 .000

 .000 .000 .073 .026-.001-.020-.036-.043-.042-.041-.038-.034-.042-.084-.114-.096-.074-.081-.054-.012 .000 .000 .000 .000 .000

 .000 .000-.020 .039 .005-.009-.000-.010-.037-.055-.051-.024 .000-.137-.189-.197-.140-.167-.096-.039 .000 .000 .000 .000 .013

 71       T OF 9 12/11 5:65 65 6P 64 6P 62 57 57 56                       ) 6 AM 9/30
 70       NO OF 2 1 FROM 31 10 49:64 66:5E OF 2 A FROM 43 10 46:64 63     ) 6 AM 9/30
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218      *-L.A. *INDFIELD ANALYSIS                                  ANAL70 PAGE    53  23 MAR 73 18:54:12
  SETS=14

GRIDPRINT OF        T(      X,      Y) IN UNITS 1.0000+02

 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .655 .674 .669 .672 .665 .663 .665 .668 .680
 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .650 .663 .672 .673 .664 .661 .663 .667 .674
 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .643 .678 .691 .681 .668 .663 .661 .666 .674
 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .646 .662 .681 .684 .664 .662 .661 .666 .672
 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .641 .645 .653 .667 .674 .661 .661 .661 .665 .669
 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .640 .639 .641 .644 .650 .658 .668 .658 .660 .661 .665 .670
 .640 .640 .640 .640 .640 .640 .648 .649 .640 .640 .640 .640 .638 .639 .638 .640 .645 .646 .661 .667 .657 .659 .660 .665 .672
 .640 .640 .640 .640 .640 .640 .657 .656 .641 .638 .638 .635 .630 .636 .641 .647 .643 .644 .655 .667 .655 .658 .660 .666 .672
 .640 .640 .640 .640 .640 .641 .664 .646 .636 .635 .633 .632 .633 .638 .642 .646 .647 .648 .651 .663 .652 .655 .667 .671 .680
 .640 .640 .640 .640 .640 .644 .639 .636 .632 .630 .630 .630 .636 .640 .643 .649 .653 .653 .654 .670 .650 .658 .679 .678 .682
 .640 .640 .640 .640 .640 .640 .636 .630 .626 .624 .626 .630 .633 .638 .646 .655 .662 .662 .658 .655 .652 .676 .683 .686 .714
 .640 .640 .640 .640 .640 .640 .637 .626 .618 .619 .624 .626 .631 .637 .646 .658 .680 .668 .661 .658 .663 .672 .673 .702 .722
 .640 .640 .640 .640 .640 .640 .640 .623 .600 .614 .618 .623 .628 .634 .642 .651 .661 .662 .660 .662 .673 .678 .678 .710 .702
 .640 .640 .640 .640 .640 .640 .640 .626 .616 .614 .617 .620 .624 .629 .635 .640 .650 .655 .657 .659 .663 .669 .679 .682 .726
 .640 .640 .640 .640 .640 .640 .636 .626 .617 .615 .615 .617 .620 .624 .629 .634 .642 .645 .648 .653 .660 .668 .703 .726 .742
 .640 .640 .640 .640 .640 .640 .631 .623 .616 .613 .612 .613 .615 .619 .623 .627 .634 .635 .640 .648 .656 .677 .722 .738 .746
 .640 .640 .640 .640 .640 .632 .624 .618 .612 .608 .607 .607 .609 .613 .618 .623 .625 .628 .634 .642 .654 .708 .726 .718 .742
 .640 .640 .640 .635 .632 .624 .618 .611 .606 .602 .600 .599 .602 .608 .624 .635 .623 .620 .631 .639 .653 .683 .709 .705 .742
 .640 .640 .640 .630 .624 .617 .610 .603 .598 .595 .593 .591 .592 .607 .623 .624 .623 .627 .633 .640 .654 .695 .71[illegible] [illegible]3 .742
 .640 .640 .629 .620 .614 .610 .603 .595 .586 .588 .588 .593 .570 .604 .620 .620 .626 .631 .636 .643 .661 .714 .718 .698 .734
 .640 .630 .620 .610 .605 .604 .600 .591 .570 .568 .592 .596 .597 .620 .622 .625 .635 .636 .640 .647 .660 .686 .706 .696 .726
 .640 .624 .608 .594 .596 .601 .602 .599 .595 .599 .603 .609 .616 .636 .630 .635 .650 .642 .647 .651 .675 .685 .703 .686 .710
 .630 .627 .603 .560 .593 .605 .611 .613 .612 .615 .617 .622 .631 .643 .645 .642 .653 .656 .654 .659 .677 .697 .685 .687 .714
 .643 .638 .619 .606 .611 .618 .623 .627 .629 .631 .630 .636 .647 .651 .653 .650 .651 .658 .658 .662 .683 .697 .702 .692 .722
 .644 .645 .639 .635 .635 .636 .641 .648 .646 .649 .645 .651 .662 .663 .664 .663 .661 .662 .665 .671 .691 .697 .704 .709 .740
 709      = L.A. WINDFIELD ANALYSIS                                          ANALZO PAGE   54  23 MAR 73 18:54:30
   SETS=14
 GRIDPRINT OF     PHI(     X,     Y) IN UNITS 1.0000+02
 -.003-.007-.013-.019-.025-.031-.036-.042-.048-.054-.060-.065-.071-.078-.084-.091 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.004-.010-.015-.021-.027-.032-.038-.044-.049-.055-.063-.065-.070-.075-.079-.081 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.007-.012-.018-.023-.028-.034-.039-.045-.051-.056-.061-.065-.069-.072-.075-.076 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.010-.015-.020-.025-.030-.035-.041-.047-.052-.057-.062-.066-.069-.071-.072-.073 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.014-.018-.023-.028-.032-.037-.042-.048-.055-.060-.064-.067-.069-.070-.070 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.017-.021-.026-.030-.034-.037-.042-.050-.058-.063-.066-.069-.071 .000-.073 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.020-.025-.029-.032-.035-.038 .000 .000-.065-.068-.071 .000-.075-.075-.075-.077 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.024-.028-.032-.035-.038-.040 .000 .000 .000-.077-.079-.080-.079-.077 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.027-.031-.036-.039-.042 .000 .000 .000-.082-.082-.083-.084-.083-.081 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.030-.035-.040-.044-.047 .000-.075-.082-.085-.087-.088-.088-.088-.086 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.033-.039-.044-.050-.057-.069-.077-.083-.088-.091-.093-.093-.093-.092 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.037-.043-.049-.055-.063-.071-.079-.088-.091-.095-.097-.099-.099-.099 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.040-.046-.053-.060-.067-.075-.082-.089-.095-.099-.102-.104-.105-.106 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.043-.050-.057-.064-.071-.078-.086-.093-.099-.103-.107-.109-.110-.111-.112 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.046-.053-.060-.068-.075-.082-.090-.096-.103-.107-.111-.113-.114-.115-.115-.115 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.050-.057-.064-.071-.079-.086-.093-.100-.106-.111-.114-.117-.118-.118-.118-.117-.116-.114 .000 .000 .000 .000 .000 .000 .000
 -.053-.060-.067-.075-.082-.090-.097-.104-.109-.114-.118-.120-.121-.121-.120-.119-.117-.115-.113 .000 .000 .000 .000 .000 .000
 -.056-.064-.071-.078-.086-.093-.100-.106-.112-.117-.120-.122-.123-.123-.121-.120-.118-.116-.114-.111 .000 .000 .000 .000 .000
 -.060-.067-.074-.082-.089-.096-.102-.108-.113-.118-.121-.123-.124-.123-.122-.121-.119-.117-.115-.112 .000 .000 .000 .000 .000
 -.063-.070-.077-.085-.091-.097-.103-.109-.113-.117-.120-.122-.123-.123-.122-.121-.119-.117-.115 .000 .000 .000 .000 .000 .000
 -.066-.073-.080-.087-.092-.097-.102-.107-.111-.114-.117-.119-.120-.120-.120-.120-.119-.116 .000 .000 .000 .000 .000 .000 .000
 -.070-.076-.082-.087-.092-.095-.099-.102-.105-.108-.111-.113-.116-.117-.117-.116 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.073-.078-.083-.087-.089-.091-.093-.095-.097-.100-.102-.106-.110 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
  .080-.079-.082-.083-.084-.085-.086-.088-.088-.090-.092-.095 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
 -.080 .000-.080-.079-.078-.078 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
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321       L.A. WINDFIELD ANALYSIS                                                  ANAL70 PAGE    55  23 MAR 73 18:54:30
   SETS=14

 GRIDPRINT OF        V(      X,      Y) IN UNITS 1.0000+00

-.390-.301-.294-.293-.291-.291-.290-.289-.289-.291-.293-.296-.300-.306-.311-.283 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.322-.294-.283-.280-.281-.282-.283-.282-.279-.272-.262-.252-.238-.217-.177-.025 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.283-.274-.268-.266-.266-.273-.279-.280-.273-.254-.233-.208-.179-.144-.100-.063 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.257-.253-.249-.247-.250-.262-.280-.290-.274-.241-.205-.169-.128-.082-.016-.133 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.233-.235-.230-.225-.226-.242-.286-.333-.292-.228-.179-.137-.075-.072-.082 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.219-.217-.209-.199-.186-.189-.298-.571-.322-.189-.143-.138-.002 .000 .058 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.209-.200-.195-.174-.142-.056 .000 .000-.328-.019-.166 .000-.038-.098 .088-.242 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.209-.205-.189-.159-.110-.067 .000 .000 .000-.000-.120-.002 .062 .086 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.222-.217-.201-.165-.094 .000 .000 .000-.007-.026-.042 .008 .069 .155 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.244-.242-.233-.206-.089 .000-.443-.177-.114-.075-.044 .003 .054 .104 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.271-.275-.278-.297-.395-.615-.339-.266-.183-.117-.065-.018 .023 .057 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.300-.304-.314-.342-.399-.431-.370-.305-.224-.147-.089-.043-.014 .001 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.321-.325-.335-.354-.377-.387-.368-.327-.251-.171-.109-.065-.044-.078 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.335-.340-.346-.358-.366-.372-.364-.333-.266-.191-.127-.079-.050-.046-.053 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.340-.351-.355-.361-.367-.369-.362-.332-.273-.203-.138-.086-.045-.019-.004 .010 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.356-.357-.361-.365-.364-.370-.359-.324-.271-.208-.143-.083-.035 .002 .030 .054 .092 .090 .000 .000 .000 .000 .000 .000 .000

-.362-.362-.365-.368-.372-.369-.351-.317-.266-.206-.143-.080-.024 .022 .053 .071 .092 .114 .139 .000 .000 .000 .000 .000 .000

-.364-.366-.371-.371-.367-.359-.338-.304-.254-.197-.139-.076-.013 .042 .070 .074 .090 .116 .133 .130 .000 .000 .000 .000 .000

-.365-.368-.371-.366-.352-.337-.315-.282-.237-.185-.131-.075-.009 .051 .076 .072 .092 .110 .106 .236 .000 .000 .000 .000 .000

-.361-.365-.361-.344-.319-.299-.281-.254-.212-.166-.124-.080-.018 .045 .051 .059 .096 .112 .084 .000 .000 .000 .000 .000 .000

-.384-.350-.335-.303-.267-.244-.231-.217-.182-.144-.120-.094-.047 .017 .026-.005 .117 .134 .000 .000 .000 .000 .000 .000 .000

-.325-.314-.293-.243-.195-.172-.167-.164-.148-.131-.129-.135-.134-.009 .048-.012 .000 .000 .000 .000 .000 .000 .000 .000 .000

-.260-.243-.222-.167-.112-.096-.097-.105-.117-.116-.148-.193-.232 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .000-.132-.106-.074-.039-.026-.028-.040-.091-.062-.212-.114 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000

 .000 .000 .025 .020 .031 .036 .006 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000
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